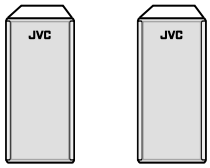
JVC

SERVICE MANUAL

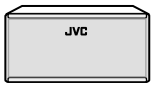
DVD DIGITAL THEATER SYSTEM

TH-A5

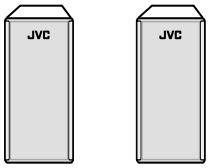
Area suffix
J ---------- U.S.A.
C ---------- Canada



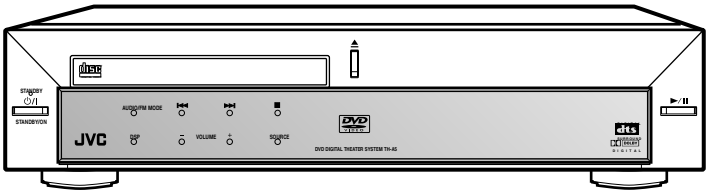
SP-XSA5×2



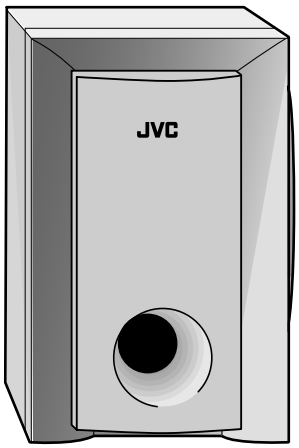
SP-XCA5



SP-XSA5×2



XV-THA5



SP-WA5

Contents

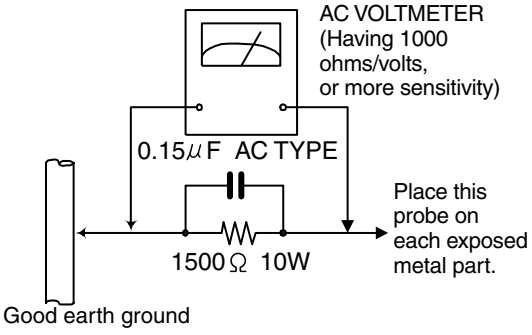
Safety precautions ---------- 1-2
Importance administering point on the safety ---------- 1-3
Preventing static electricity ---------- 1-4
Disassembly method ---------- 1-5
Wiring connection ---------- 1-12
Adjustment method ---------- 1-13
Description of major ICs ---------- 1-15~33

COPYRIGHT © 2002 VICTOR COMPANY OF JAPAN, LTD.

No.21060
Jan. 2002

Safety Precautions

1. This design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer`s warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (⚠) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.
5. Leakage currnet check (Electrical shock hazard testing)
   After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.
   Do not use a line isolation transformer during this check.
   - Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.).
   - Alternate check method
     Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500Ω 10W resistor paralleled by a 0.15μF AC-type capacitor between an exposed metal part and a known good earth ground.
     Measure the AC voltage across the resistor with the AC voltmeter.
     Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and meausre the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Voltage measured any must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).



Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

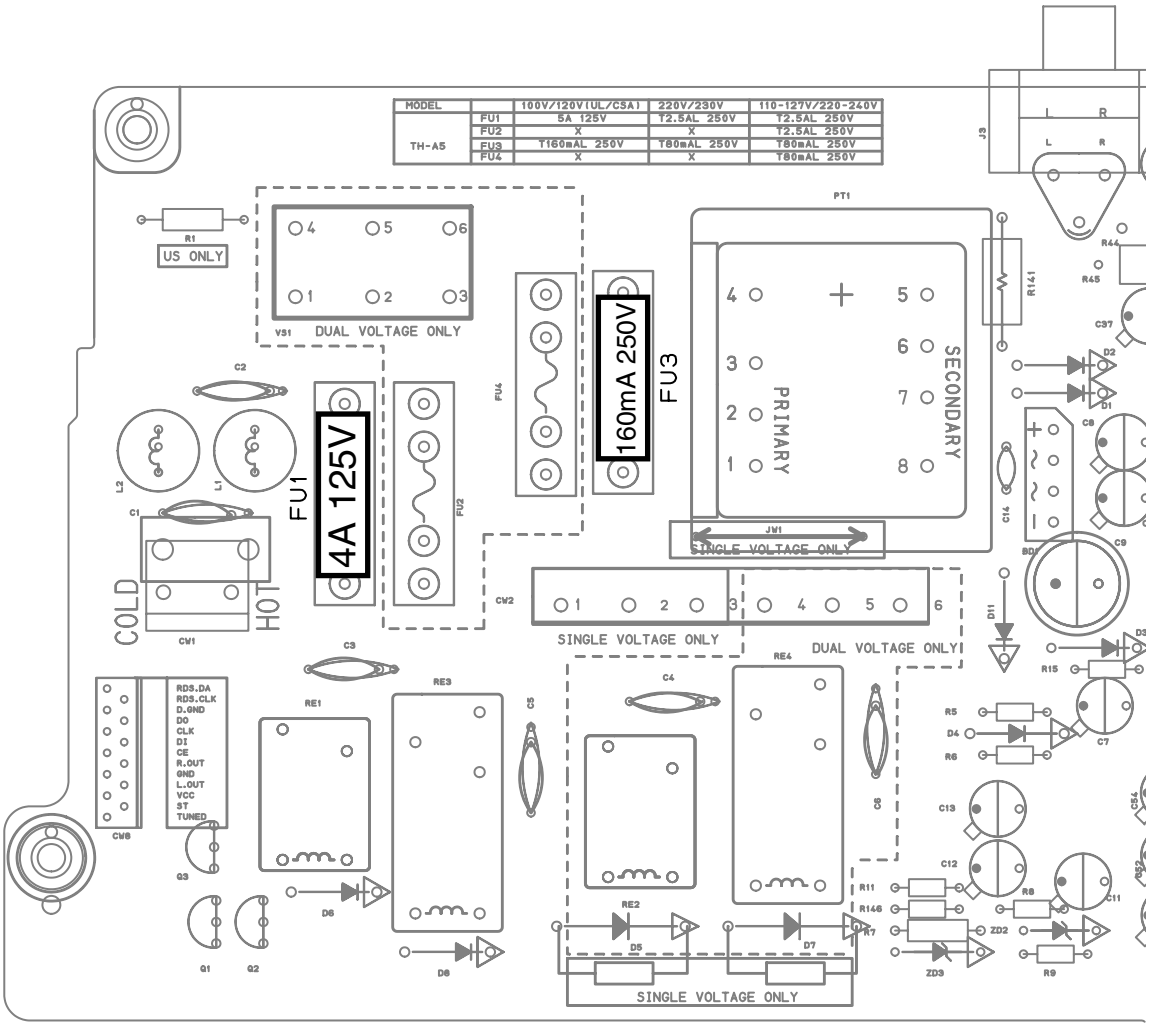
⚠ CAUTION

Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of preforming repair of this system.

In regard with component parts appearing on the silk-screen printed side (parts side) of the PWB diagrams, the parts that are printed over with black such as the resistor (▬), diode (▮) and ICP (●) or identified by the "⚠" mark nearby are critical for safety.

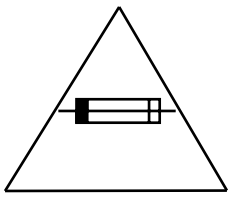
(This regulation does not correspond to J and C version.)

Importance administering point on the safety



Main board (Forward side)

For USA and Canada / pour États - Unis d' Amérique et Canada



Caution: For continued protection against risk of fire, replace only with same type 4A/125V for FU1, 160mA/250V for FU3 .
This symbol specifies type of fast operating fuse.

Précaution: Pour eviter risques de feux, remplacez le fusible de sureté de et FU1 comme le meme type que 5A/125V, et 160mA/250V pour FU3.
Ce sont des fusibles sûretes qui functionnes rapide.

Preventing static electricity

1.Grounding to prevent damage by static electricity

Electrostatic discharge (ESD), which occurs when static electricity stored in the body, fabric, etc. is discharged, can destroy the laser diode in the traverse unit (optical pickup). Take care to prevent this when performing repairs.

2.About the earth processing for the destruction prevention by static electricity

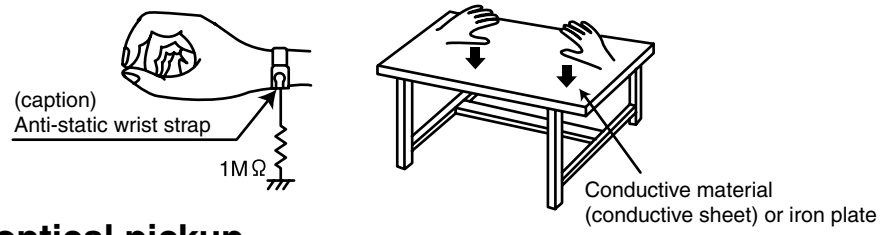
Static electricity in the work area can destroy the optical pickup (laser diode) in devices such as CD players. Be careful to use proper grounding in the area where repairs are being performed.

2-1 Ground the workbench

Ground the workbench by laying conductive material (such as a conductive sheet) or an iron plate over it before placing the traverse unit (optical pickup) on it.

2-2 Ground yourself

Use an anti-static wrist strap to release any static electricity built up in your body.



3. Handling the optical pickup

1. In order to maintain quality during transport and before installation, both sides of the laser diode on the replacement optical pickup are shorted. After replacement, return the shorted parts to their original condition. (Refer to the text.)
2. Do not use a tester to check the condition of the laser diode in the optical pickup. The tester's internal power source can easily destroy the laser diode.

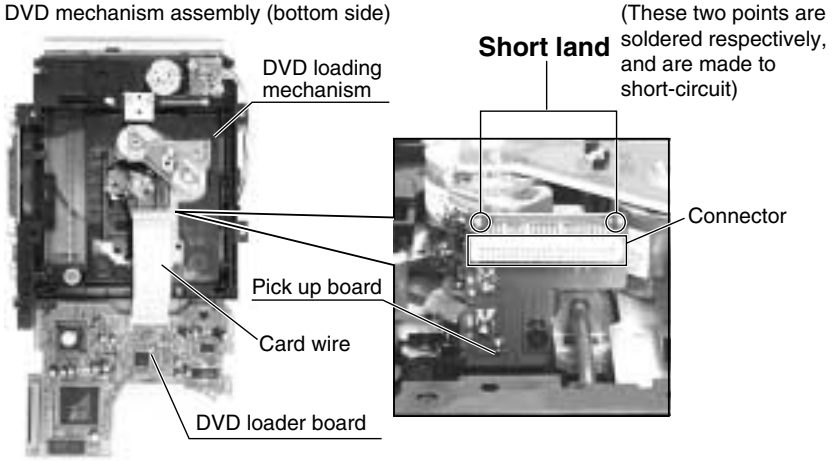
4.Handling the traverse unit (optical pickup)

1. Do not subject the traverse unit (optical pickup) to strong shocks, as it is a sensitive, complex unit.
2. Cut off the shorted part of the flexible cable using nippers, etc. after replacing the optical pickup. For specific details, refer to the replacement procedure in the text. Remove the anti-static pin when replacing the traverse unit. Be careful not to take too long a time when attaching it to the connector.
3. Handle the flexible cable carefully as it may break when subjected to strong force.
4. It is not possible to adjust the semi-fixed resistor that adjusts the laser power. Do not turn it.

Attention when traverse unit is decomposed

***Please refer to "Disassembly method" in the text for pick-up and how to detach the substrate.**

1. Solder is put up before the card wire is removed from connector on the pick up board as shown in Figure.
   (When the wire is removed without putting up solder, the CD pick-up assembly might destroy.)
2. Please remove solder after connecting the card wire with when you install picking up in the substrate.



Disassembly method

■Removing the top cover (See Fig.1)

1. Remove the four screws **A** attaching the top cover on the both sides of the body.

2. Remove the two screws **B** on the back of the body.

3. Remove the top cover from behind in the direction of the arrow while pulling both sides outward.

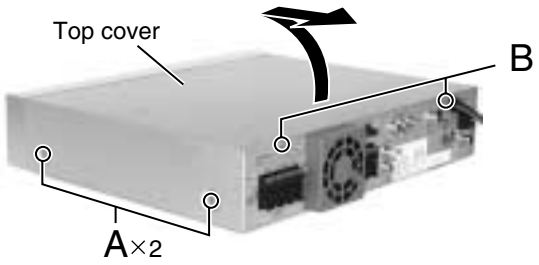


Fig.1

■Removing the front panel assembly (See Fig.2A, 2B and 3)

- Prior to performing the following procedure, remove the top cover.

1. Remove the one screw **a** and remove the earth wirer.
2. Remove the three screws **C** attaching the front panel assembly on the bottom of the body.
3. Remove the two screws **D** attaching the front panel assembly on the both sides of the body.
4. Remove the claw1, claw2 and claw3, and detach the front panel assembly toward the front.
5. Disconnect the card wire from the connector DW20

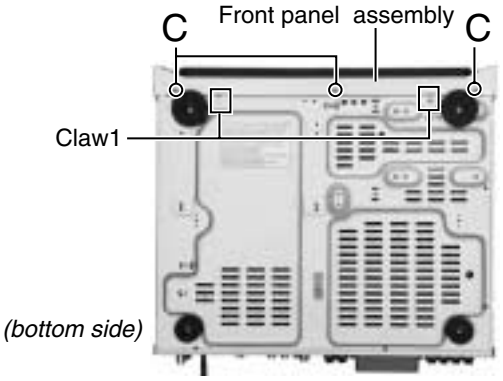


Fig.2A

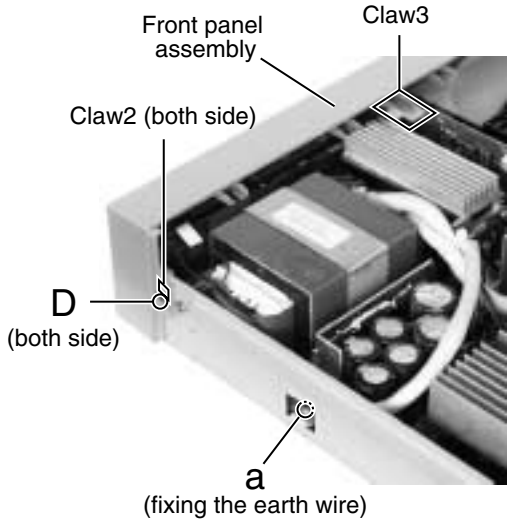


Fig.2B

■Removing the power cord (See Fig.4)

- Prior to performing the following procedure, remove the top cover.

1. Disconnect the power cord from the connector CW1 on the main board and pull up the cord stopper upward.

Notes : The power cord is exchangeable.

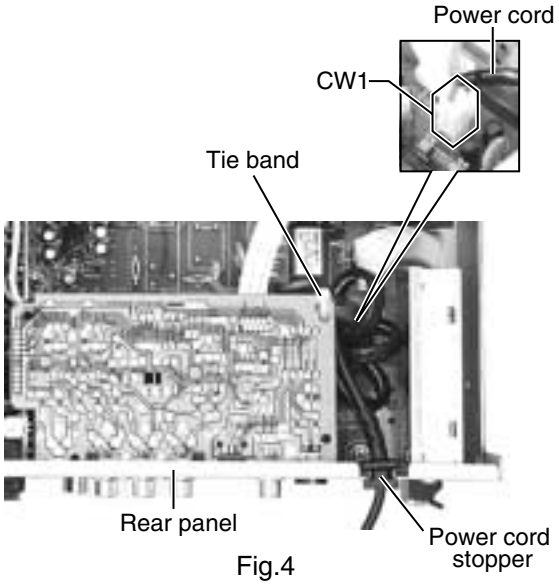


Fig.4

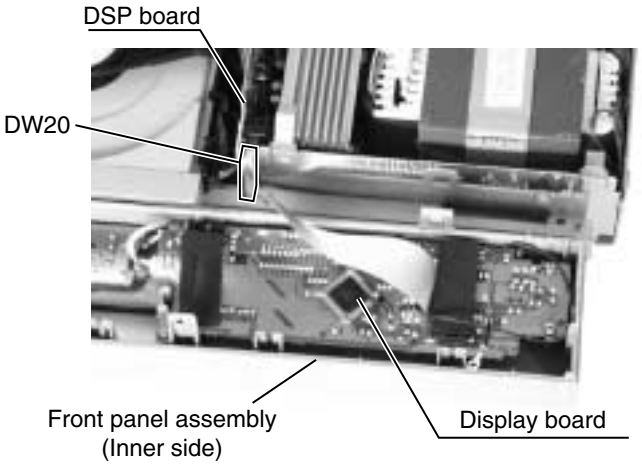


Fig.3

■Removing the DVD mechanism assembly (See Fig.5 and 6)

- Prior to performing the following procedure, remove the top cover.

1. Disconnect the card wire from the connector J14 and J21 on the DVD MPEG board.
2. Remove the two screws **E** attaching the DVD mechanism assembly and pull up with drawing out.
3. Disconnect the harness from the connector J2 on the DVD loader board.

■Removing the rear panel (See Fig.7 and 8)

- Prior to performing the following procedure, remove the top cover and power cord.

1. Disconnect the harness from the connector NW11 on the DSP board.
2. Remove the two screws **F**, four screws **G**, one screw **I** and five screws **J** attaching the each boards to the rear panel.
3. Remove the three screws **K** attaching the rear panel on the back of the body.

■Removing the tuner pack (See Fig.7 and 8)

- Prior to performing the following procedure, remove the top cover.

1. Disconnect the card wire from the connector CON01 on the tuner pack.
2. Remove the two screws **F** attaching the tuner pack to the rear panel.

■Removing the jack board (See Fig.7 and 8)

- Prior to performing the following procedure, remove the top cover.

1. Disconnect the card wire from the connector VW2 on the jack board.
2. Remove the four screws **G** attaching the jack board to the rear panel.
3. Disconnect the connector VW1 on the jack board and pull up the jack board.

■Removing the fan motor (See Fig.7 and 8)

- Prior to performing the following procedures, remove the top cover .

1. Disconnect the harness from the connector NW11 on the DSP board .
2. Removing the two screws **H** attaching the fan motor on the rear panel.

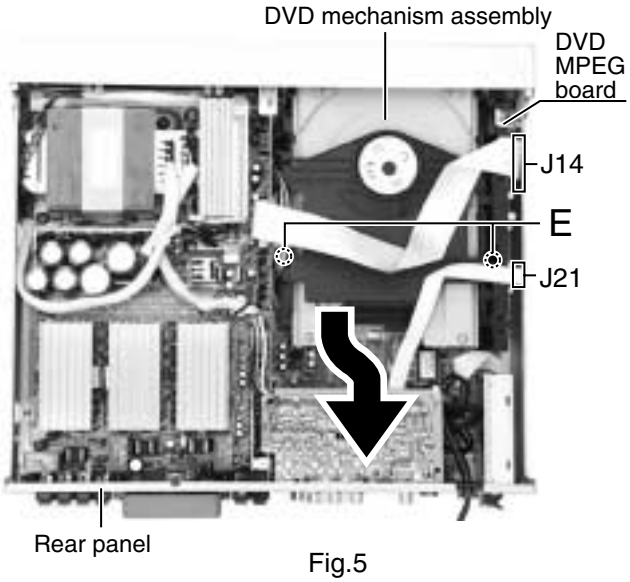


Fig.5

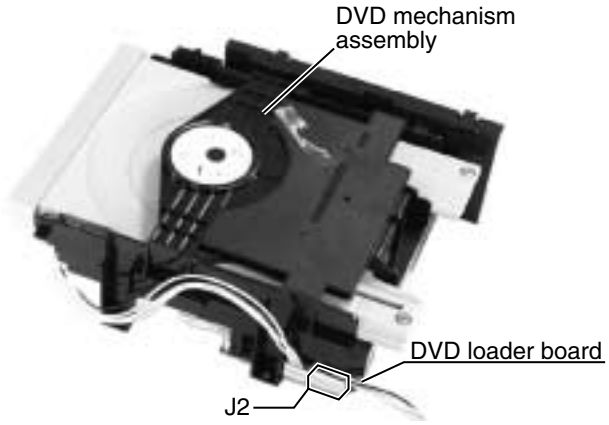


Fig.6

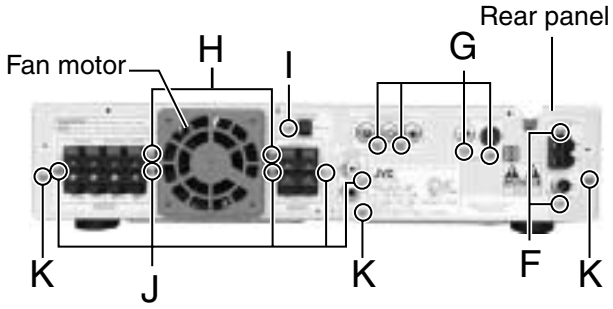


Fig.7

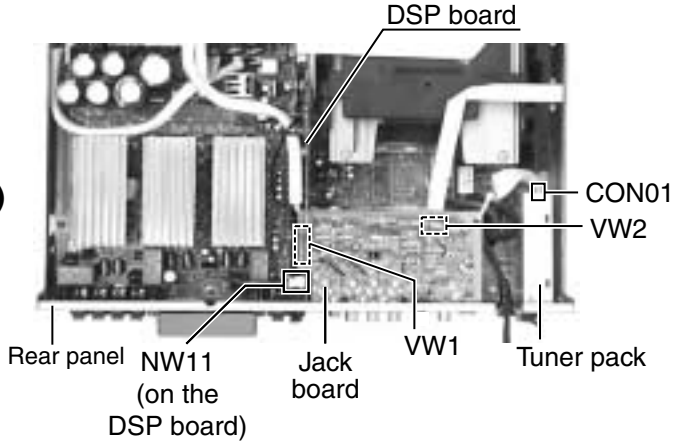


Fig.8

■ Removing the DSP board (See Fig.9)

・ Prior to performing the following procedure, remove the top cover, the front panel assembly and jack board.

1. Untied the harness band and disconnect the harness from the connector CW2 on the main board.
2. Disconnect the harness from the connector NW11 on the DSP board.
3. Disconnect the card wire from the connector VW12 on the DSP board.
4. Remove the one screw **I** attaching the DSP board to the rear panel (see fig.7).
5. Pull up the DSP board from the front side upwards disconnecting the connector DW10, DW13, DW14 and DW15.

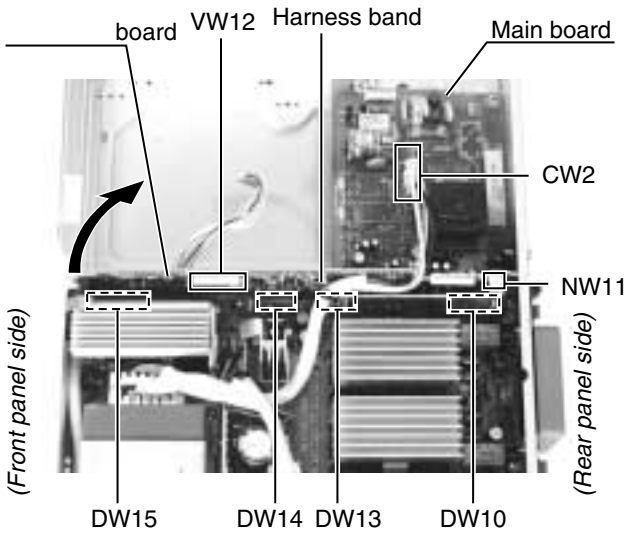


Fig.9

■ Removing the main board (See Fig.10)

・ Prior to performing the following procedure, remove the top cover, front panel assembly, DVD mechanism assembly, jack board and DSP board.

1. Disconnect the card wire from the connector CW4 and CW8 on the main board.
2. Disconnect the harness from the connector CW3 on the main board.
3. Remove the five screws **J** attaching the speaker terminals and jack to the rear panel (see fig.7).
4. Remove the six screws **L1** (short) and one screw **L2** (long) attaching the main board.
5. When the rear panel is not removed, pull up the main board from front side.

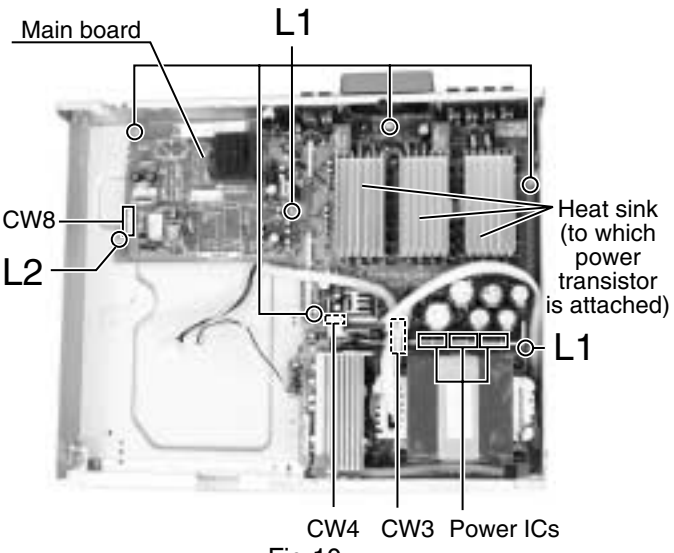


Fig.10

■ Removing the power transistor & power IC (See Fig.10 and 11)

・ Prior to performing the following procedure, remove the top cover, front panel assembly, DVD mechanism assembly, jack board, DSP board and main board.

1. After removing the solder part soldered to the main board, remove each screw and remove the heat sink from Power transistor.
2. After removing the solder part soldered to the main board, remove each screw and remove the heat sink from Power IC.

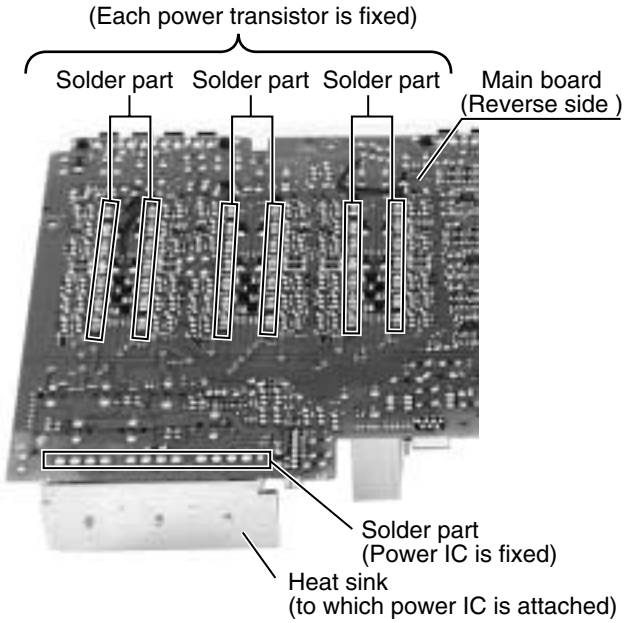


Fig.11

■ Removing the DVD power board (See Fig.12)

- Prior to performing the following procedure, remove the top cover, front panel assembly and DSP board.

1. Disconnect the harness and card wire from the connector PW1, PW2 and PW5 on the DVD power board.

2. Remove the one screw **M1** (short) and two screws **M2** (long) attaching the DVD power board.

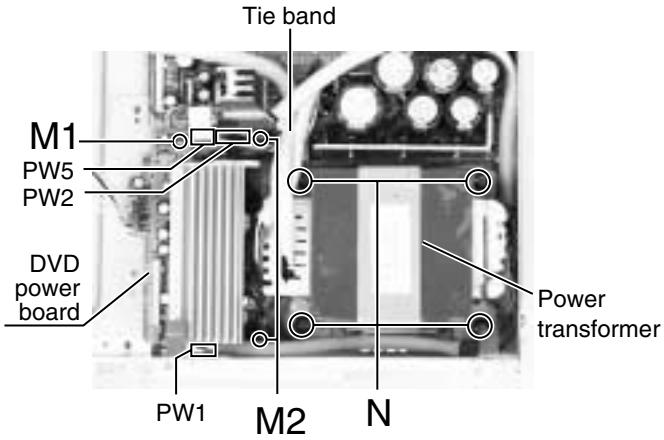


Fig.12

■ Removing the power transformer (See Fig.12)

- Prior to performing the following procedure, remove the top cover.

1. Cut off the tie band fixing the harness, if needed.

2. Disconnect the harness from the connector CW2 on the main board (see fig.9) and PW1, PW2 on the DVD power board.

3. Remove the four screws **N** attaching the power transformer.

<Front panel assembly section>

■ Removing the display board & switch board (See Fig.1 and 2)

- Prior to performing the following procedure, remove the top cover and the front panel assembly.

1. Disconnect the card wire from the connector FW1 on the display board.

2. Remove the five screws **A** attaching the display board on the inner of the front panel assembly.

3. Remove the four screws **B** attaching the switch board on the inner of the front panel assembly.

4. Disconnect the harness from connector FW2 on the display board, if needed.

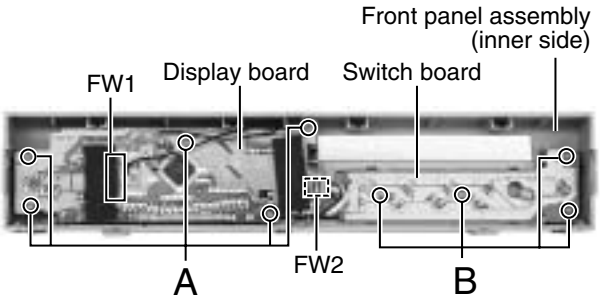


Fig.1

■ Removing the front window (See Fig.2 and 3)

- Prior to performing the following procedure, remove the top cover, front panel assembly, display board and switch board.

1. Remove the switch buttons, if needed.

2. Remove the three screws **C** attaching the front window on the front panel.

3. Remove the eight claws fixing the front window on the front panel.

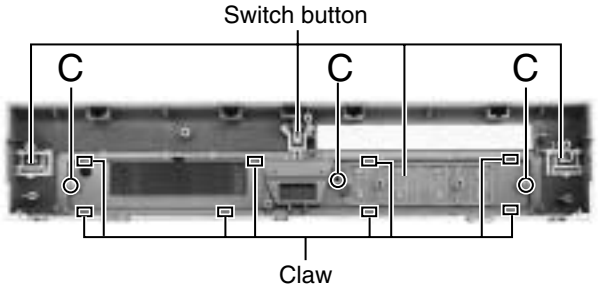


Fig.2

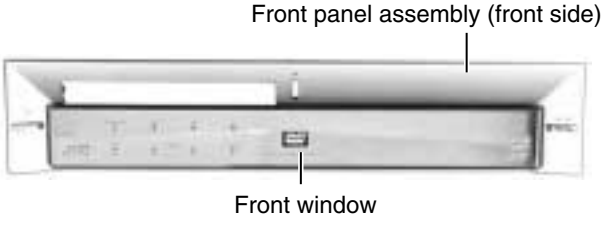


Fig.3

<DVD mechanism assembly section>

■Removing the DVD loader board (See Fig.1 to 3)

- Prior to performing the following procedure, remove the top cover and DVD mechanism assembly.

1. Disconnect the card wire from the connector J6 on the DVD MPEG board.
2. Disconnect the harness from the connector on the motor board.
3. Disconnect the harness from the connector J5 on the DVD loader board.
4. Remove the four screws **A** attaching the DVD loader board to DVD mechanism assembly.

CAUTION!! (see fig.3)

Before removing the card wire which connects the pickup board and DVD loader board, solder the two soldering parts and make it short-circuit.
Moreover, while having removed the card wire, don't remove these solder.

5. Disconnect the card wire from the connector U9 on the DVD loader board.

ONE POINT

■How to eject the DVD tray manually (see fig.2)

The white lever of the ★ mark is moved in the direction of the arrow. Then, the tray will be opened.
Moreover, the tray is separable from a DVD mechanism assembly by removing two screws of the☆mark (see fig.1) and drawing out the tray.

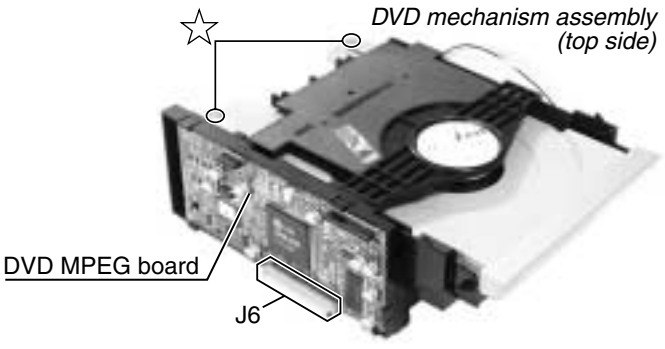


Fig.1

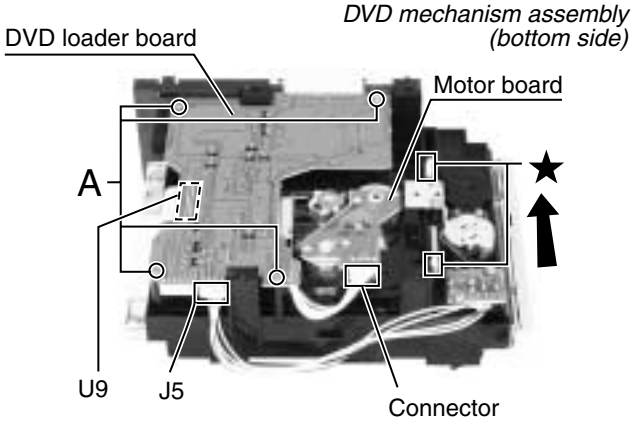


Fig.2

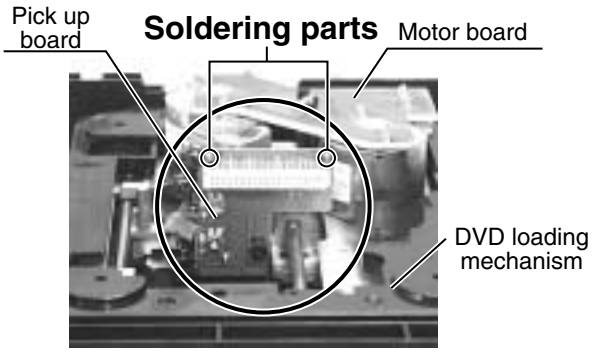


Fig.3

■Removing the DVD loading mechanism (See Fig.4)

- Prior to performing the following procedure, remove the top cover, DVD mechanism assembly and DVD loader board.

1. Remove the two screws **B** and remove the bracket.
2. Remove the one screw **C** fixing the DVD loading mechanism.
3. Move the lever in the direction of the arrow **X**.
4. Remove the DVD loading mechanism from the DVD mechanism assembly by moving it in the direction of the arrow **Y**.

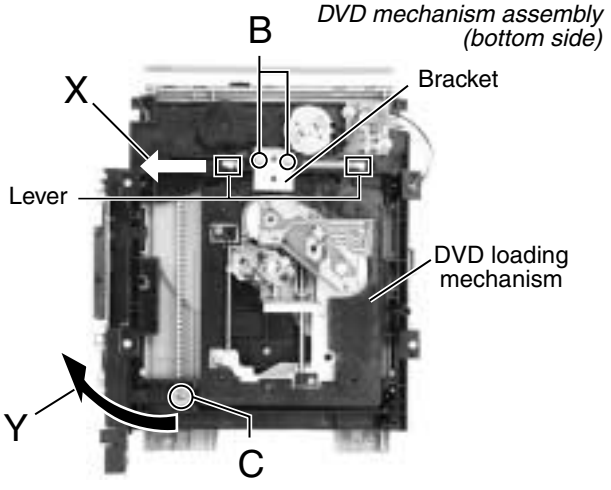


Fig.4

■ Removing the DVD traverse mechanism (See Fig.5)

- Prior to performing the following procedure, remove the top cover, DVD mechanism assembly, DVD loader board and DVD loading mechanism.

1. Remove the four screws **D** attaching the DVD traverse mechanism to DVD loading mechanism.

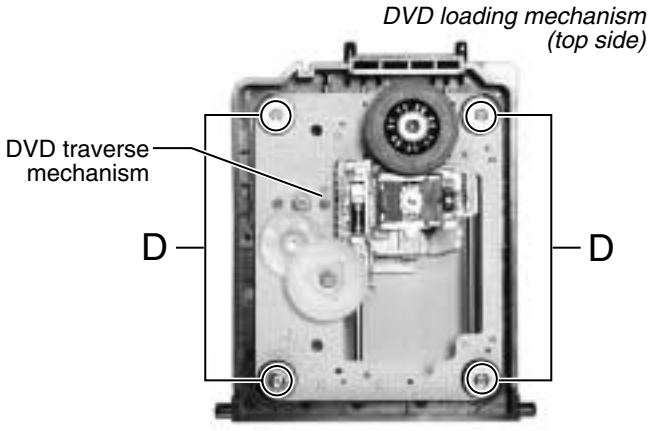


Fig.5

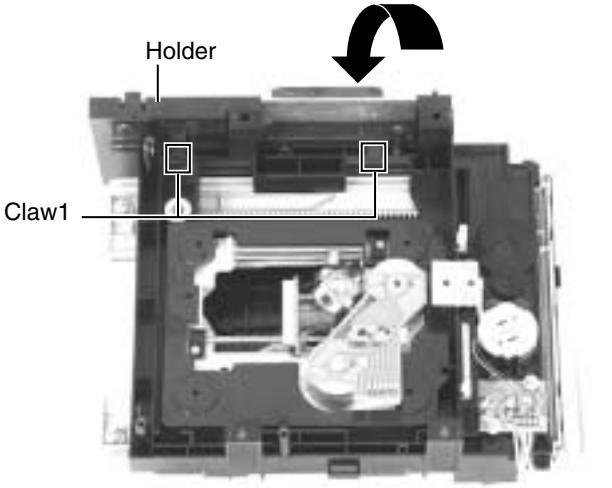
■ Removing the holder & DVD MPEG board (See Fig.6 and 7)

- Prior to performing the following procedure, remove the top cover, DVD mechanism assembly and DVD loader board.

1. Remove the two claws1, and remove the holder from the DVD mechanism assembly as it is pushed down.

   Note: When removing only the DVD MPEG board, it is not necessary to remove this holder.

2. Remove the four claws2 and remove the DVD MPEG board from the holder.



DVD mechanism assembly (bottom side)

Fig.6

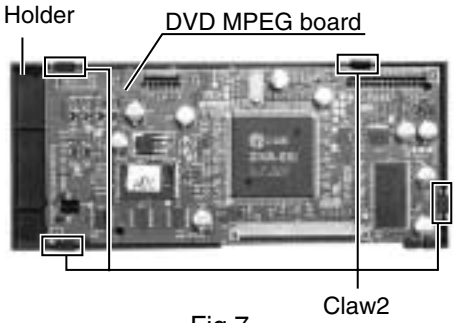


Fig.7

ONE POINT

■ **When inserting DVD MPEG board in holder. (see fig.8)**

Insert in after uniting with a lower claws, when inserting DVD MPEG board in holder.

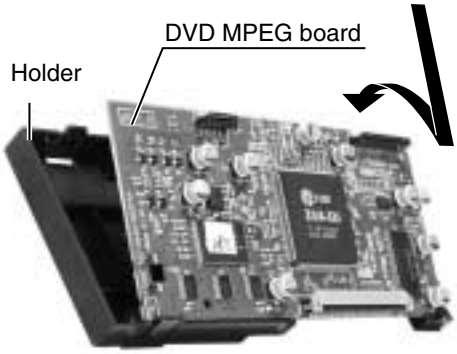


Fig.8

<Speaker section>
[SP-XSA5 / Satellite speaker]

● It is exchange in a unit.

[SP-XCA5 / Center speaker]

● It is exchange in a unit.

[SP-WA5 / Woofer]

■ Removing the speaker unit

(See Fig.1 to 3)

1. Remove the four bosses and remove the net assembly.

   Notes: It will be good to use the tool with a flat tip, since it is hard to remove. Please take care not to damage the cabinet at this time.

2. Remove the eight screws **A** attaching the speaker unit to cabinet.

3. Disconnect the code from the two terminals of the speaker unit.

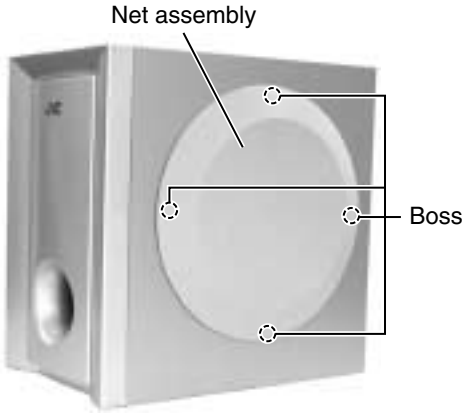


Fig.1

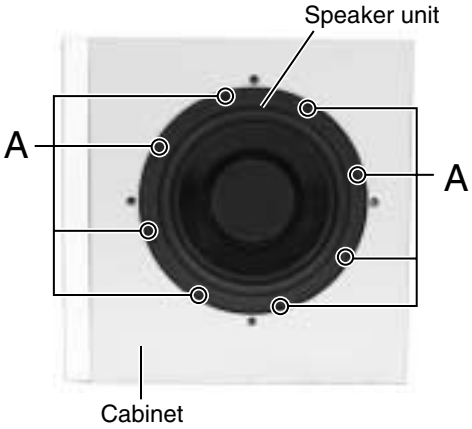
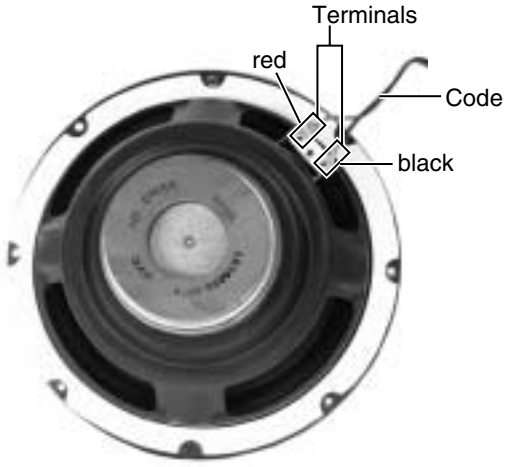


Fig.2



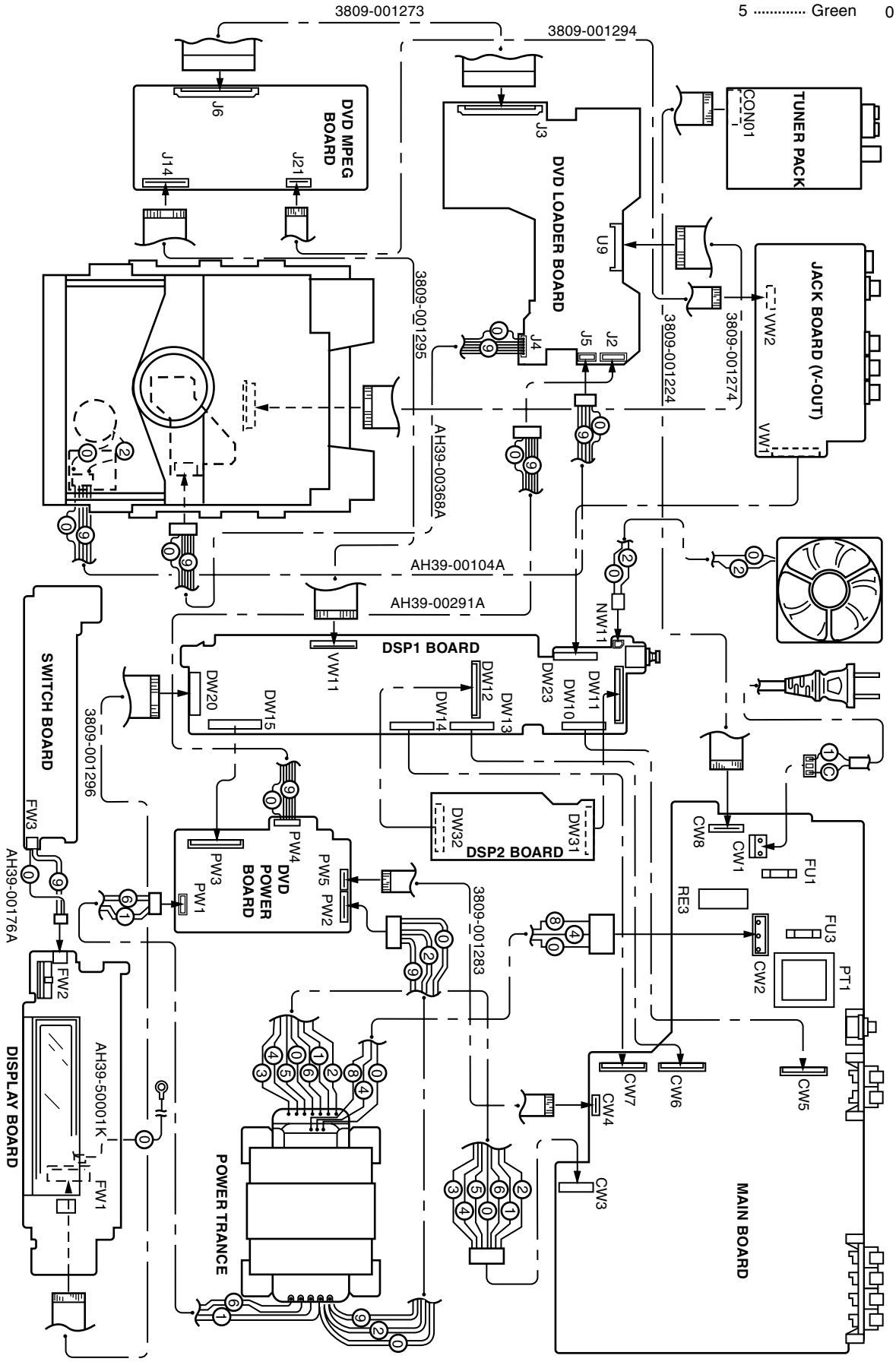
Speaker unit (reverse side)

Fig.3

Wiring connection

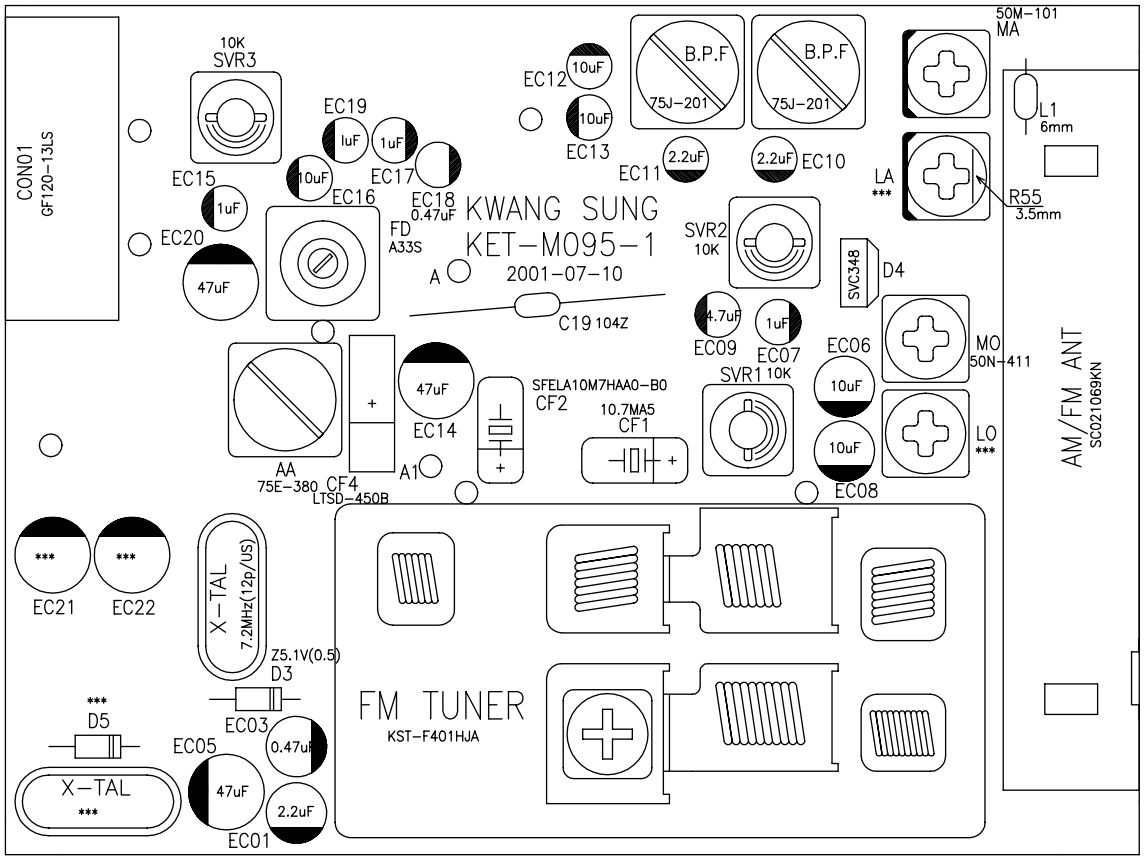
Color codes are shown below.

1	Brown	6	Blue
2	Red	7	Violet
3	Orange	8	Gray
4	Yellow	9	White
5	Green	0	Black



Adjustment method

1. Tuner



*Adjustment Location of Tuner PCB

ITEM	AM(MW) OSC Adjustment	AM(MW) RF Adjustment
Received FREQ.	530~1710 KHz	603 KHz
Adjustment point	MO	MA
Output	1~7.0V	Maximum Output(Fig1-1)

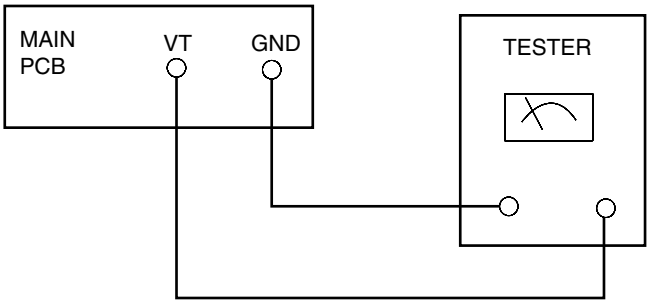


Fig 1-1 OSC Voltage

FM THD Adjustment	
SSG FREQ.	98 MHz
Adjustment point (FD)	FM DETECTOR COIL
Output	60 dB
Minimum Distortion (0.4% below) (Figure 1-2)	

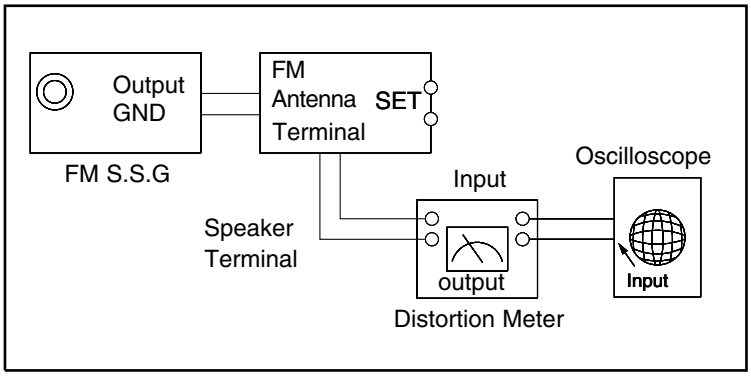


Figure1-2 IF CENTER and THD Adjustment

FM Search Level Adjustment	
SSG FREQ.	98 MHz
Adjustment point (SVR3)	BEACON SENSITIVITY SEMI-VR(20K)
Output	28 dB(dB)
Adjust SVR1 so that “TUNED” of FL T is lighted (Figure 1-3)	

*Adjust FM S.S.G level to 28dB

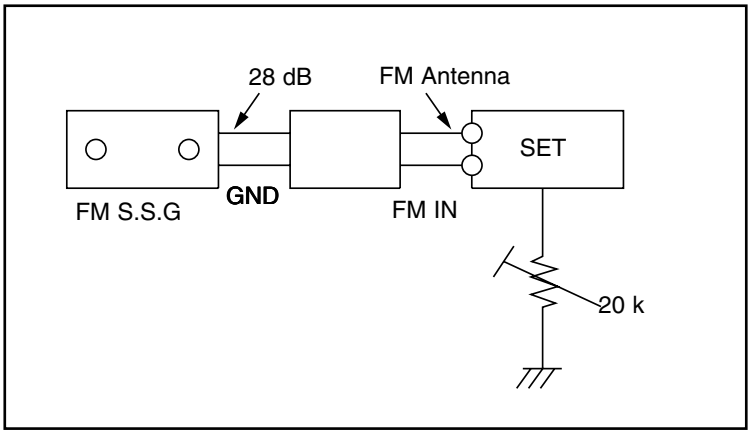


Figure1-3 FM Auto Search Level Adjustment

AM(MW) I.F Adjustment	
SSG FREQ.	450 kHz
Frequency	522 kHz
Adjustment point	AA
Maximum output (Figure 1-4)	

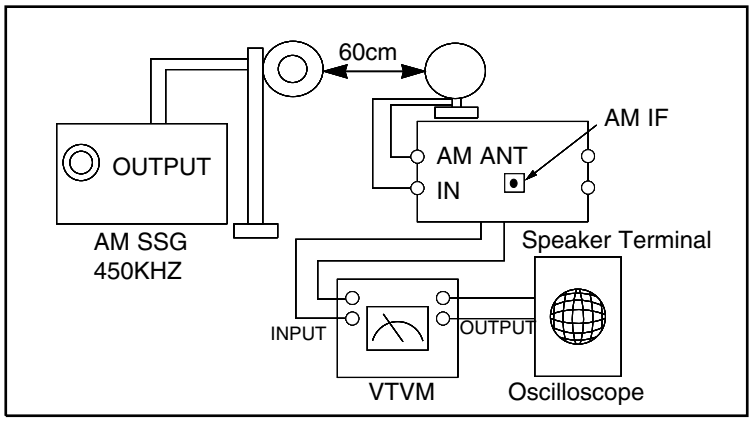


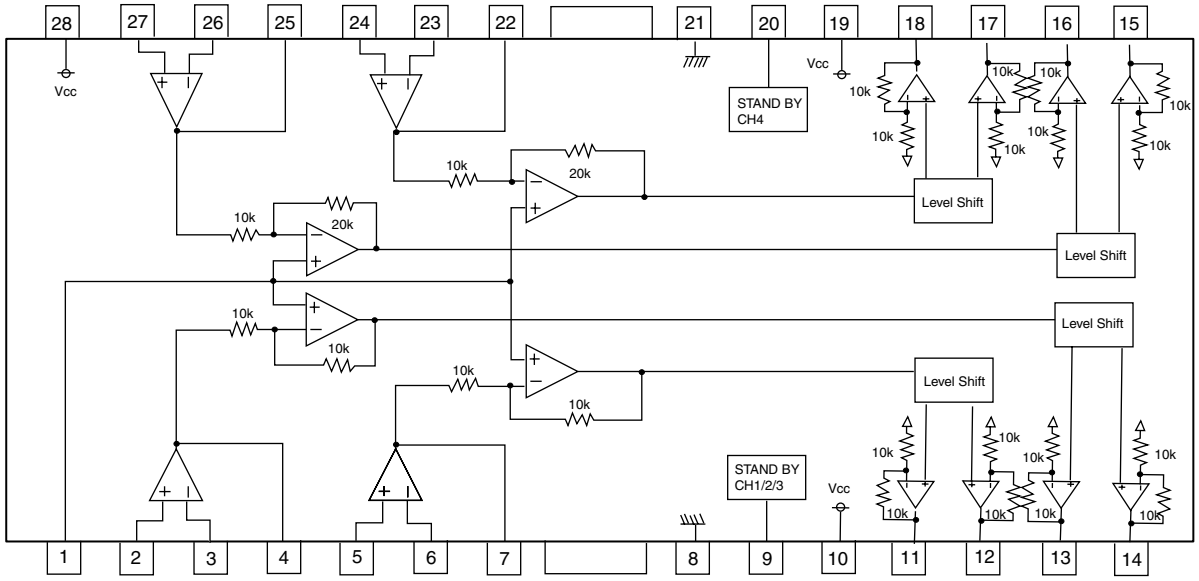
Figure1-4 AM I.F Adjustment

Notes: This set is a non-adjusted set fundamentally. It is adjusted when the tuner pack is exchanged.

Description of major ICs

■ BA5983FM (U6) : 4CH driver

1.Block diagram



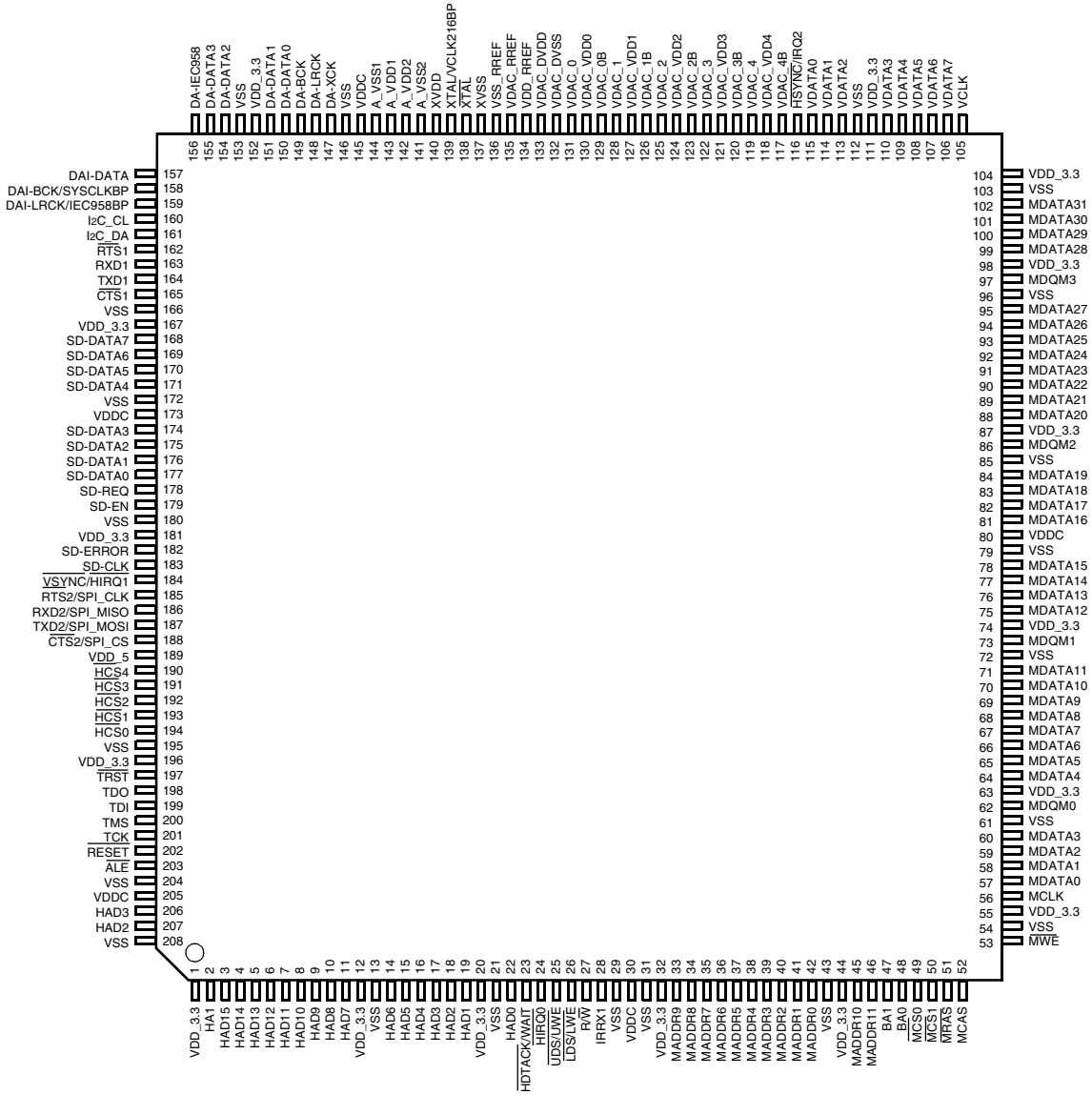
2.Pin function

Pin No.	Symbol	I/O	Function
1	BLAS IN	I	Input for Bias-amplifier
2	OPIN1(+)	I	Non inverting input for CH1 OP-AMP
3	OPIN1(-)	I	Inverting input for CH1 OP-AMP
4	OPOUT1	O	Output for CH1 OP-AMP
5	OPIN2(+)	I	Non inverting input for CH2 OP-AMP
6	OPIN2(-)	I	Inverting input for CH2 OP-AMP
7	OPOUT2	O	Output for CH2 OP-AMP
8	GND	-	Substrate ground
9	STBY1	I	Input for CH1/2/3 stand by control
10	PowVcc1	-	Vcc for CH1/2 power block
11	VO2(-)	O	Inverted output of CH2
12	VO2(+)	O	Non inverted output of CH2
13	VO1(-)	O	Inverted output of CH1
14	VO1(+)	O	Non inverted output of CH1

Pin No.	Symbol	I/O	Function
15	VO4(+)	O	Non inverted output of CH4
16	VO4(-)	O	Inverted output of CH4
17	VO3(+)	O	Non inverted output of CH3
18	VO3(-)	O	Inverted output of CH3
19	PowVcc2	-	Vcc for CH3/4 power block
20	STBY2	I	Input for Ch4 stand by control
21	GND	-	Substrate ground
22	OPOUT3	O	Output for CH3 OP-AMP
23	OPIN3(-)	I	Inverting input for CH3 OP-AMP
24	OPIN3(+)	I	Non inverting input for CH3 OP-AMP
25	OPOUT4	O	Output for CH4 OP-AMP
26	OPIN4(-)	I	Inverting input for CH4 OP-AMP
27	OPIN4(+)	I	Non inverting input for CH4 OP-AMP
28	PreVcc	-	Vcc for pre block

■ ZiVA-5 (U8) : DVD controller

1. Pin layout



2. Pin function (1/4)

	Name	Pin No.	Type [1]	Description
System Services	RESET	202	I	Active Low Reset. Assert for at least 5-milliseconds in the presence of clock to reset the entire chip.
	VCLK	105	I/O	Video clock that outputs 27 MHz.
	XOUT	138	O	Crystal output. When the internal DCXO is used, a 13.5 MHz crystal should be con-nected between this pin and the XIN pin.
	XIN/bypass clk_216	139	I	Crystal input. When the internal DCXO is used, a 13.5 MHz crystal should be con-nected between this pin and the XOUT pin. When an external oscillator or VCXO is used, its output should be connected to this pin. When configured for an external bypass clock, a 216 MHz clock should be connected to this pin. The frequency of an external VCXO can be either 27 or 13.5 MHz.

1. I - input, O - output, OD - open drain, PU - requires external pull-up resistor.

2. Pin function (2/4)

	Name	Pin No.	Type [1]	Description
Power and Ground	VNW	189	Power	5-V supply voltage for 5V-tolerant I/O signals.
	VDDP	12, 20, 111, 152, 167, 181, 196	Power	3.3-V supply voltage for I/O signals
	VDD25	32, 44, 55, 63, 74, 87, 98, 104	Power	3.3-V supply voltage for SDRAM I/O signals
	XVDD	140	Power	3.3V Crystal interface power
	VDD	30, 80, 145, 173, 205	Power	1.8-V supply voltage for core logic
	VDD_VDAC[4:0]	118, 121, 124, 127, 130	Power	Analog Video DAC Power
	VDAC_DVDD	133		3.3V Digital supply for 5 DACs
	A_VDD[2:1]	142, 143		3.3-V Analog PLL Power
	VDAC_REFVDD	134	Power	3.3V Analog Video Reference Voltage
	GNDP	13, 21, 112, 153, 166, 180, 195, 208	Ground	Ground for I/O signals
	GND	29, 79, 146, 172, 204	Ground	Ground for core logic
	GND25	31, 43, 54, 61, 72, 85, 96, 103	Ground	Ground for SDRAM I/O signals
	VDAC_DVSS	132	Ground	Digital VSS for DACs
	AVSS[2:1]	141, 144	Ground	Analog PLL Ground
	VDAC_REFVSS	136	Ground	Video Analog Ground
	XVSS	137	Ground	Crystal interface ground
Host Interface	$\overline{HCS}$[4:2]/GPIO[41:43]	190-192	O	Host chip select. Host asserts $\overline{HCS}$ to select the controller for a read or write operation. The falling edge of this signal triggers the read or write operation. General Purpose I/Os 41, 42, and 43, respectively.
	$\overline{HCS}$[1:0]	193, 192	I	Host chip select. Host asserts $\overline{HCS}$ to select the controller for a read or write operation. The falling edge of this signal triggers the read or write operation.
	HA[3:1]	206, 207, 2	I/O	Host (muxed address) address bus. 3-bit address bus selects one of eight host inter-face registers. These signals are not muxed in ATAPI master mode.
	HA[15:0]	3-11, 14-19, 22	I/O	HA[15:0] is the 16-bit (muxed address and data) bi-directional host data bus through which the host writes data to the decoder Code FIFO. MSB of the 32-bit word is writ-ten first. The host also reads and writes the decoder internal registers and local SDRAM/ROM via HA[7:0]. These signals are not muxed for ATAPI master mode.
	$\overline{HDTACK}$/WAIT	23	I/OD	Host Data Transfer Acknowledge.
	$\overline{HIRQ0}$	24	I/O	Host interrupt. Open drain signal, must be pulled-up via 4.7kΩto 3.3 volts. Driven high for 10 ns before tristate.
	$\overline{HUDS}$/UWE	25	I/O	Host Upper Data Strobe. Host high byte data, HA[15:8], is valid when this pin is active.
	$\overline{HLDS}$/$\overline{LWE}$	26	I/O	Host Lower Data Strobe. Host low byte data, HA[7:0], is valid when this pin is active.
	HREAD	27	I/O	Read/write strobe
	$\overline{ALE}$	203	I/O	Address latch enable
SDRAM Interface	$\overline{MCS}$[1:0]	50, 49	O	Memory chip select.
	$\overline{MCAS}$	52	O	Active LOW SDRAM Column Address Strobe.
	$\overline{MRAS}$	51	O	Active LOW SDRAM Row Address Strobe.
	MDQM[3:0]	97, 86, 73, 62	O	These pins are the bytes masks corresponding to MD[7:0], [15:8], [23:16] and [31:24]. They allow for byte reads/writes to SDRAM.
	MA[11:0]	46, 45, 33-42	O	SDRAM Address
	MD[31:0]	102-99, 95-88, 84-81, 78-75, 71-64, 60-57	I/O	SDRAM Data
	$\overline{MWE}$	53	O	SDRAM Write Enable. Specifies transaction to SDRAM: read (=1) or write (=0)
	MCLK	56	O	SDRAM Clock
	BA[1:0]	47, 48	O	SDRAM bank select
Digital Video Input/Output	$\overline{HSYNC}$/$\overline{HIRQ2}$/ GPIO1[9]	116	I/O	Horizontal sync. The decoder begins outputting pixel data for a new horizontal line after the falling (active) edge of HSYNC. Host Interrupt Request 2 General Purpose I/O 9
	VCLK	105	I/O	Video clock. Clocks out data on input. VDATA[7:0]. Clock is typically 27 MHz.
	VDATA[7:0]/GPIO[1:7]	106-110, 113-115	I/O	Video data bus. Byte serial CbYCrY data synchronous with VCLK. At powerup, the decoder does not drive VDATA. During boot-up, the decoder uses configuration parameters to drive or 3-state VDATA. General Purpose I/Os [1:7]
	$\overline{VSYNC}$/$\overline{HIRQ1}$/ GPIO36	184	I/O	Vertical sync. Bi-directional, the decoder outputs the top border of a new field on the first $\overline{HSYNC}$ after the falling edge of $\overline{VSYNC}$. $\overline{VSYNC}$ can accept vertical synchroni-zation or top/bottom field notification from an external source. ($\overline{VSYNC}$ HIGH = bot-tom field. $\overline{VSYNC}$ LOW = Top field) Active Low Host Interrupt Pin General Purpose I/O 36

1. I - input, O - output, OD - open drain, PU - requires external pull-up resistor.

2. Pin function (3/4)

	Name	Pin No.	Type [1]	Description
Parallel DVD/CD or Serial CD Interface	SDDATA[7]/VDATA2[7] /HDMARQ/GPIO24	168	I	Compressed data from DVD DSP. Bit 7. In parallel mode, bit 7 is the first (earliest in time) bit in the bitstream, while bit 0 is the last bit. Video Data Bus 2, Bit 7 Host DMA Request General Purpose I/O 24
	SDDATA6/VDATA2[6] /HXCVR_EN/GPIO25	169		Compressed data from DVD DSP. Bit 6. Video Data Bus 2, Bit 6 ATAPI Transceiver Enable General Purpose I/O 25
	SDDATA5/VDATA2[5] HDMACK/GPIO26	170		Compressed data from DVD DSP. Bit 5. Video Data Bus 2, Bit 5 Host DMA Acknowledge General Purpose I/O 26
	SDDATA4/VDATA2[4]/ GPIO27	171		Compressed data from DVD DSP. Bit 4. Video Data Bus 2, Bit 4 General Purpose I/O 27
	SDDATA3/ VDATA2[3]/GPIO28	174		Compressed data from DVD DSP. Bit 3. Video Data Bus 2, Bit 3 General Purpose I/O 28
	SDDATA2/ VDATA2[2]/GPIO29	175		Compressed data from DVD DSP. Bit 2. Video Data Bus 2, Bit 2 General Purpose I/O 29
	SDDATA1/ VDATA2[1]/GPIO30	176		Compressed data from DVD DSP. Bit 1. Video Data Bus 2, Bit 1 General Purpose I/O 30
	SDDATA0/ VDATA2[0]/GPIO31	177		In serial mode, bit 0 should be used as the input, with the unused bits either used as GPIOs or tied to ground. Video Data Bus 2, Bit 0 General Purpose I/O 31
	SDCLK	183	I	Data clock. The maximum frequency is 25 MHz for parallel mode, and ???? MHz for serial mode. The polarity of this signal is programmable.
	SDERROR	182	I	Error in input data. This signal carries the error bit associated with the channel data type (if set, the byte is corrupted).
	SDEN/GPIO33	179	I	Data enable. Assertion indicates that data on SDDATA[7:0] is valid. The polarity of this signal is programmable. General Purpose I/O [33]
	SDREQ/GPIO32	178	O	Bitstream request. controller asserts SDREQ to indicate that the bitstream input buffer has available space. General Purpose I/O 32
Analog Video Output	VDAC_[4B:0B]	117, 120, 123, 126, 129	Analog O	Video DAC Bias Bits[4:0]
	VDAC_4	119	Analog O	DAC video output format: R, V, C, or CVBS. Macrovision encoded.
	VDAC_3V	122	Analog O	DAC video output format: B, U, C, or CVBS. Macrovision encoded.
	DAC_2	125	Analog O	DAC video output format: G or Y. Macrovision encoded.
	VDAC_1	128	Analog O	DAC video output format: C. Macrovision encoded.
	VDAC_0	131	Analog O	DAC video output format: CVBS or Y. Macrovision encoded.
	VDAC_REF	135	Analog I	Video DACs Reference Resistor. Connecting to pin 136 through a 1.18K+/- 1% resis-tor is required.
	VCLK	105	I/O	System clock that drives internal PLLs. ZiVA-5 27-MHz TTL oscillator. (See descrip-tion of VCLK for Digital Video Output.) Also optional video clock for internal PLLs or external encoder.
Audio Interface	ADATA[3:0]/GPIO[4:1]	155, 154, 151, 150	O	PCM Data Out. Eight channels. Serial audio samples relative to BCK and LRCK. General Purpose I/Os [4:1]
	BCK	149	O	PCM Bit Clock. BCK can be either 48 or 32 times the sampling frequency
	LRCK	148	O	PCM Left Clock. Identifies the channel for each sample. The polarity is programma-ble.
	XCK	147	I/O	Audio External Frequency clock input or output. BCK and LRCK are derived from this clock.
	IEC958/GPIO14	156	O	PCM data out (IEC-958 format) or compressed data out (IEC-1937 format). General Purpose I/O [14]
Digital Mic In	DAI_DATA/GPIO15	157	I	PCM data input. General Purpose I/O [15]
	DAI_BCK/ BYPASS_SYSCLK/ GPIO16	158	I	PCM input bit clock. BYPASS_SYSCLK: Alternate function TBS. General Purpose I/O [16]
	DAI_LRCK/ IEC958BP/GPIO17	159	I	PCM left/right clock. IEC958 input bypass General Purpose I/O [17]

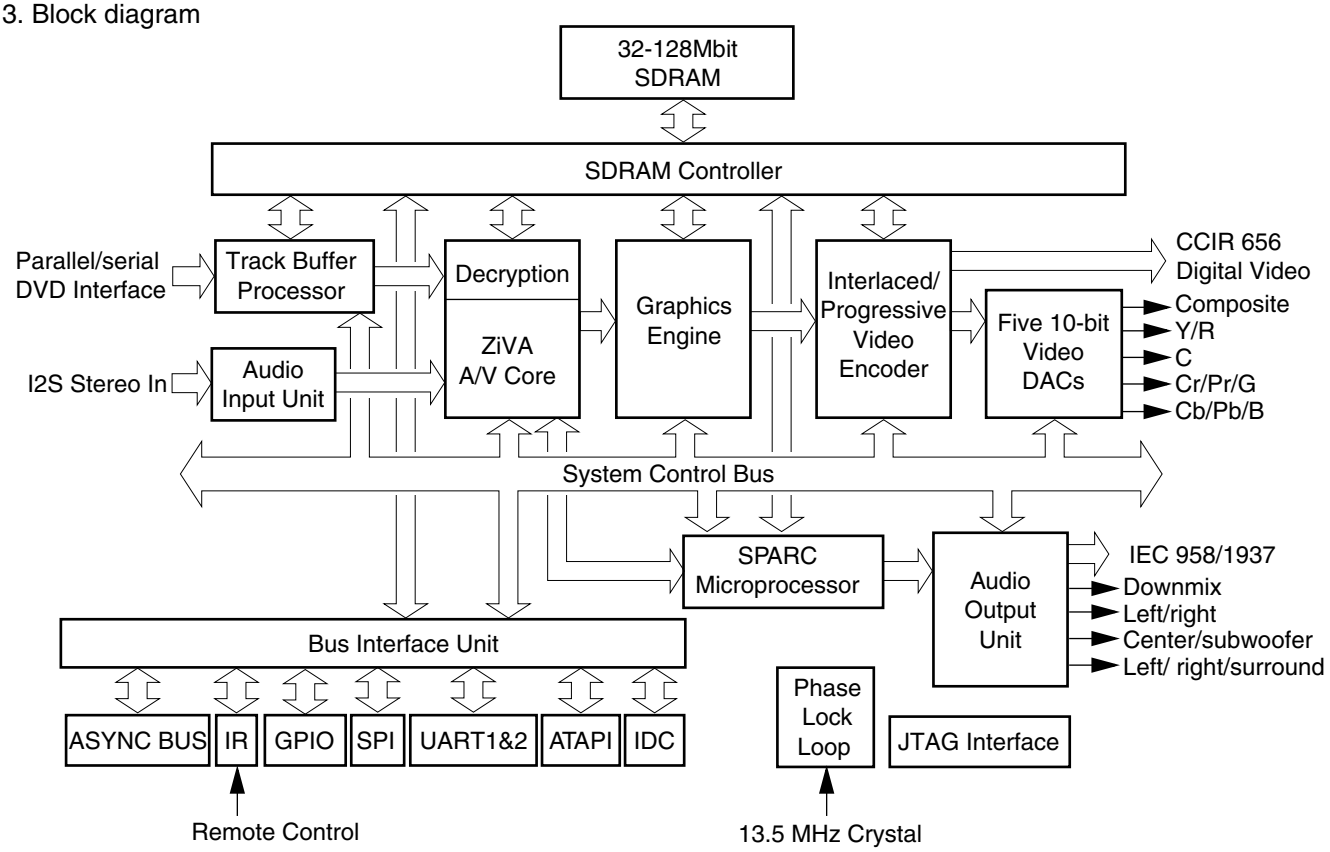
1. I - input, O - output, OD - open drain, PU - requires external pull-up resistor.

2. Pin function (4/4)

	Name	Pin No.	Type [1]	Description
IR	IRRX1/GPIO0	28	I	IR Remote Receive. This input connects to an integrated (photo diode, band pass, demodulator) IR receiver. General Purpose I/O 0
IDC	IDC_CL/GPIO18	160	I/O	Serial clock signal for IDC data transfer. It should be pulled up to the positive supply voltage, depending on the device) using an external pull-up resistor. General Purpose I/O [18]
	IDC_DA/GPIO19	161		Serial data signal for IDC data transfer. It should be pulled up to the supply voltage using an external pull-up resistor. General Purpose I/O [19]
UART1	$\overline{\text{RTS1}}$/GPIO20	162	O	Ready to send, UART1 General Purpose I/O [20]
	RXD1/GPIO21	163	I	Receive data, UART1 General Purpose I/O [21]
	TXD1/GPIO22	164	O	Transmit data, UART1 General Purpose I/O [22]
	$\overline{\text{CTS1}}$/GPIO23	165	I	Clear to send, UART1 General Purpose I/O [23]
UART2	$\overline{\text{RTS2}}$/SPI_CLK/ GPIO37	185	O	Ready to send, UART2 Serial Peripheral Interface Clock General Purpose I/O [37]
	RXD2/SPI_MISO/ GPIO38	186	I	Receive data, UART2 Serial Peripheral Interface - Master Input/Slave Output General Purpose I/O [38]
	TXD2/SPI_MOSI/ GPIO39	187	O	Transmit data, UART2 Serial Peripheral Interface - Master Output/Slave Input General Purpose I/O [39]
	$\overline{\text{CTS2}}$/SPI_CS/ GPIO40	188	I	Clear to send, UART2 Serial Peripheral Interface ???? General Purpose I/O [40]
JTAG	$\overline{\text{TRST}}$	197	I	Test reset. BST reset - resets the TAP controller. This signal must be pulled low.
	TDO	198	O	Test data Out. BST serial data output.
	TDI/GPI0	199	I	Test data In. BST serial data chain input. General Purpose Input pin 0.
	TMS/GPI1	200	I	Test mode select. Controls state of test access port (TAP) controller. General Purpose Input pin 1.
	TCK	201	I	Test clock. Boundary scan test (BST) serial data clock.

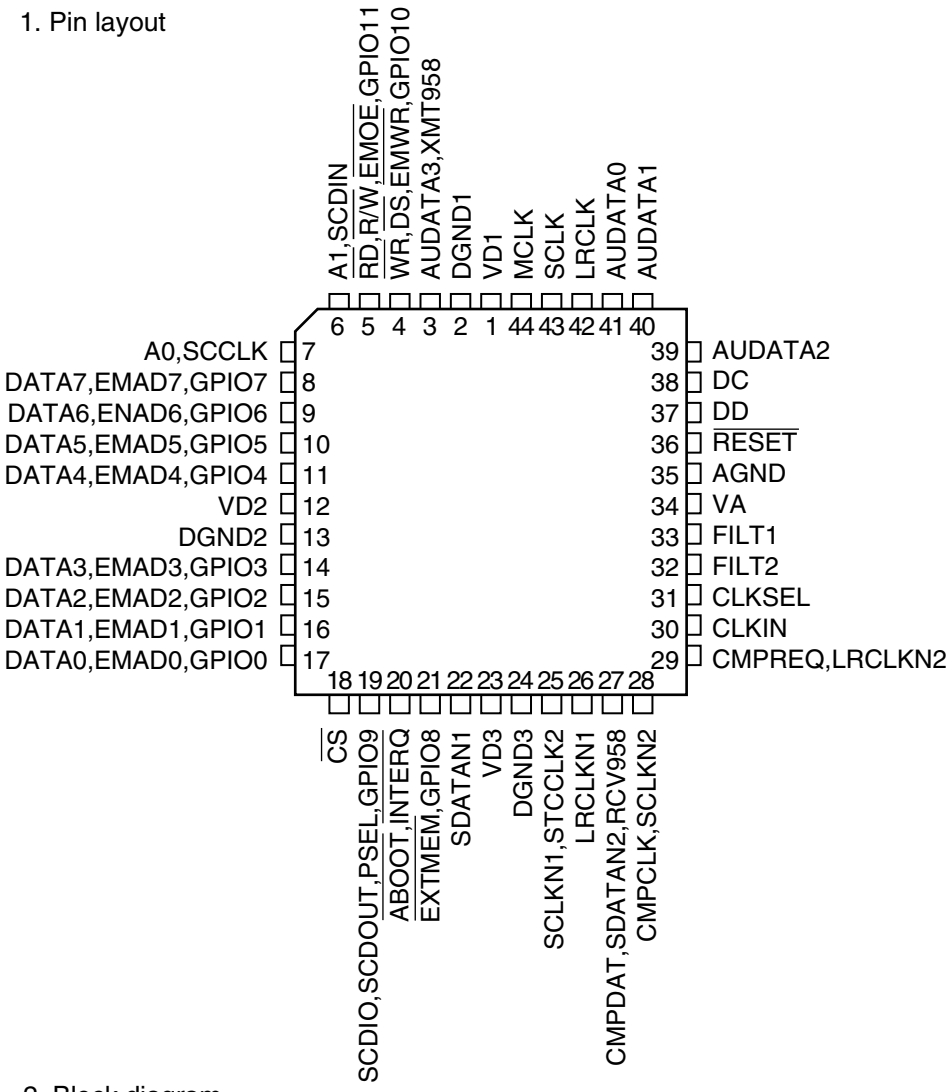
1. I - input, O - output, OD - open drain, PU - requires external pull-up resistor.

3. Block diagram

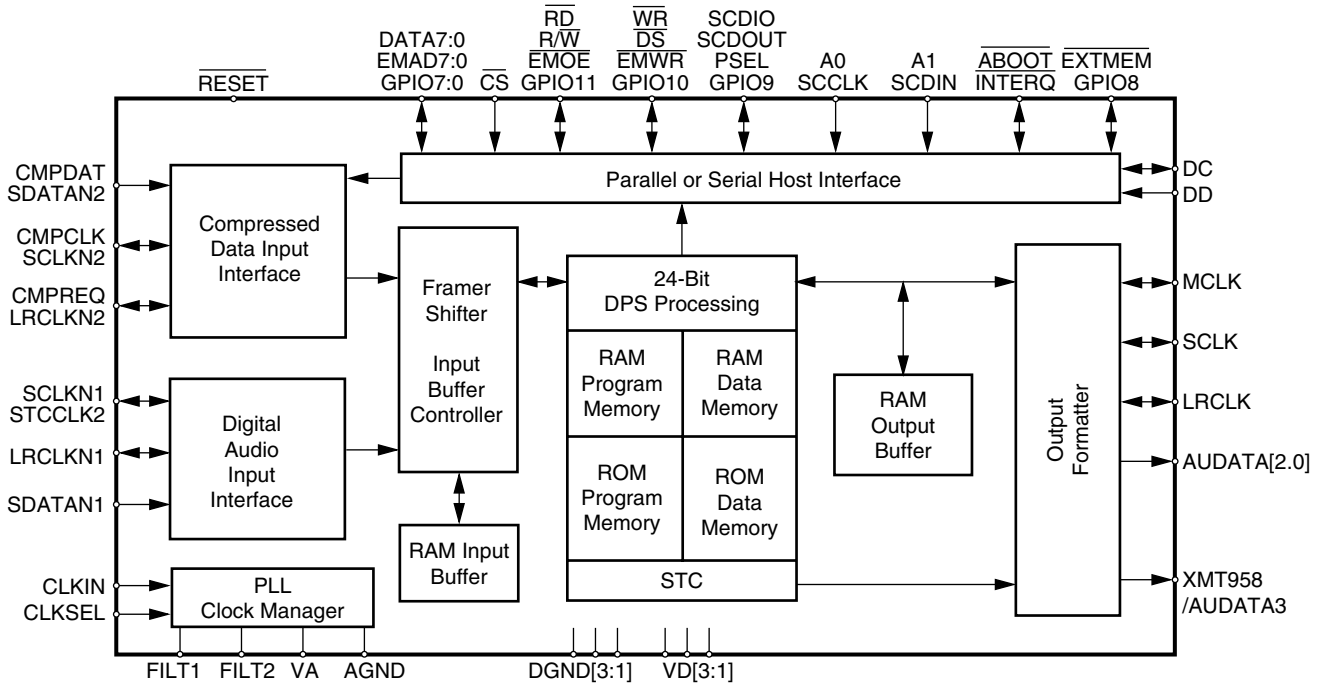


■ CS493292 (DIC11) : Audio decoder

1. Pin layout



2. Block diagram

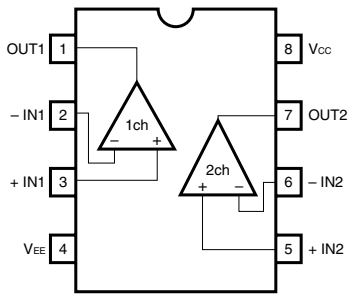


3. Pin function

Pin No.	Symbol	Function
1,12,23	VD1,VD2,VD3	Digital Positive Supply
2,13,24	DGND1,DGND2,DGND3	Digital Supply Ground
3	AUDATA3,XMT958	SPDIF Transmitter Output, Digital Audio Output 3
4	WR,DS,EMWR,GPIO10	Host write strobe or Host data strobe or External Memory write enable or General purpose input& output Number 10
5	RD,R/W,EMOE,GPIO11	Host Parallel Output Enable or Host Parallel R/W or External Memory Output Enable or General Purpose Input & Output Number11
6	A1,SCDIN	Host Address Bit One or SPI Serial Control Data Input
7	A0,SCCLK	Host Parallel Address Bit Zero or Serial Control Port Clock
8	DATA7,EMAD7,GPIO7	Data Bus
9	DATA6,ENAD6,GPIO6	Data Bus
10	DATA5,EMAD5,GPIO5	Data Bus
11	DATA4,EMAD4,GPIO4	Data Bus
14	DATA3,EMAD3,GPIO3	Data Bus
15	DATA2,EMAD2,GPIO2	Data Bus
16	DATA1,EMAD1,GPIO1	Data Bus
17	DATA0,EMAD0,GPIO0	Data Bus
18	CS	Host Parallel Chip Select, Host Serial SPI Chip Select
19	SCDIO,SCDOUT,PSEL,GPIO9	Serial Control Port Data Input and Output, Parallel Port Type Select
20	ABOOT,INTERQ	Control Port Interrupt Request, Automatic Boot Enable
21	EXTMEM,GPIO8	External Memory Chip Select or General Purpose Input & Output Number 8
22	SDATAN1	PCM Audio Data Input Number One
25	SCLKN1,STCCLK2	PCM Audio Input Bit Clock
26	LRCLKN1	PCM Audio Input Sample Rata Clock
27	CMPDAT,SDATAN2	PCM Audio Data Input Number Tow
28	CMPCLK,SCLKN2	PCM Audio Input bit Clock
29	CMPREQ,LRCLKM2	PCM Audio Input Sample Rate Clock
30	CLKIN	Master Clock Input
31	CLKSEL	DSP Clock Select
32	FILT1	Phase Locked Loop Filter
33	TILT2	Phase-Locked Loop Filter
34	VA	Analog Positive Supply
35	AGND	Analog Supply Ground
36	RESET	Master Reset Input
37	DC	Reserved
38	DD	Reserved
39	AUDATA2	Digital Audio Output 2
40	AUDATA1	Digital Audio Output 1
41	AUDATA0	Digital Audio Output 0
42	LRCLK	Audio Output Sample Rate Clock
43	SCLK	Audio Output Bit Clock
44	MCLK	Audio Master Clock

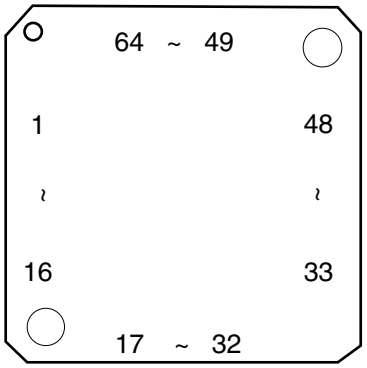
■ BA4560 (IC2, IC5, IC6, IC7, CIC11, CIC13, FIC2, FIC4, FIC5, FIC6, FIC11, RIC11, RIC13) : Dual op amp.

1.Pin layout



■ SP3721A (U7) : DVD driver

1.Pin layout



2.Pin function (1/2)

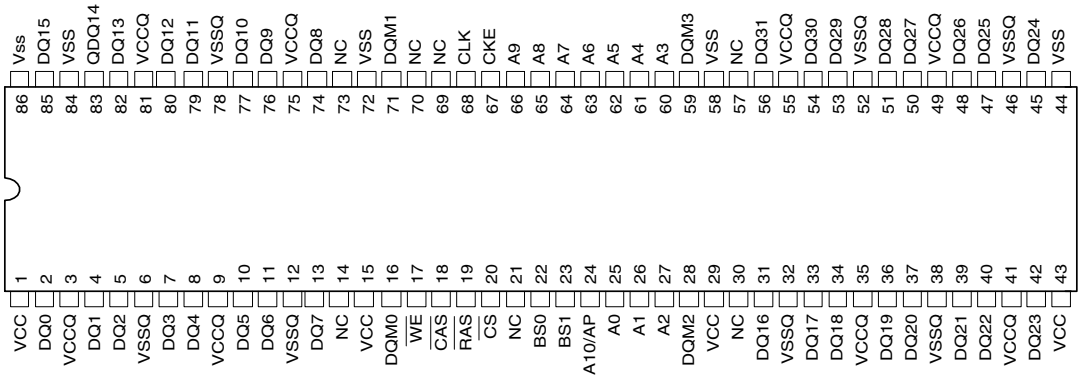
Pin No.	Symbol	I/O	Function
1	DVDRFP	I	RF Signal Inputs. Differential RF signal attenuator input pins.
2	DVDRFN		
3,4	PD1,PD2	I	CD Photo detector Interface Inputs. Inputs from the CD photo detector error outputs.
5~6	A2,B2	I	Photo Detector Interface Inputs. AC coupled inputs for the DPD from
7~ 8	C2,D2		the main beam Photo detector matrix outputs.
9	CP	I/O	Differential Phase tracking LPF pin. An external capacitance is connected between this pin and the CN pin.
10	CN	I/O	Differential Phase tracking LPF pin. An external capacitance is connected between this pin and the CP pin.
11~14	A,B,C,D	I	Photo Detector Interface Inputs. Inputs from the main beam Photo detector matrix outputs.
15~16	E,F	I	CD tracking Error Inputs. Inputs from the CD photo detector error outputs.
17	CDTE	-	CD Tracking. E-F Opamp output for feedback.
18	VCI2	-	Reference Voltage input. DC bias voltage input for the servo input reference.
19	NC	-	No Connect.
20	VNB	-	Ground. Ground pin for the servo block.
21	DVDPD	I	APC Input. DVD APC input pin from the monitor photo diode.
22	DVDLD	O	APC output. DVD APC output pin to control the laser power.
23	CDPD	I	APC Input. DVD APC input pin from the monitor photo diode.
24	CDLD	O	APC output. DVD APC output pin to control the laser power.
25	LDON#	I	APC output. on/off. APC output control pin. A low level activates the LD output. (open high)
26	VC	-	Reference Voltage output. This pin provides the internal DC bias reference voltage (+2.5+ fix). Output impedance is less than 50 ohms.
27	VCI	-	Reference Voltage input. DC bias voltage input for the servo input reference.
28	VPB	-	Power. Power supply pin for the servo block.
29	MIRR	O	Mirror Detect Output. Mirror Detect comparator output. Pseudo CMOS output.
30	MP	-	MIRR signal Peak hold pin. An external capacitance is connected to between this pin and VPB.
31	MB	-	MIRR signal Bottom hold pin. An external capacitance is connected to between this pin and VPB.
32	FDCHG#	I	Low Impedance Enable. A TTL compatible input pin that activates the FDCHG switches. A low level activates the switches and the falling edge of the internal FDCHG triggers the fast decay for the NIRR bottom hold circuit. (open high)
33	MLPF	-	MIRR signal LPF pin. An external capacitance is connected between this pin and VPB.

2.Pin function (2/2)

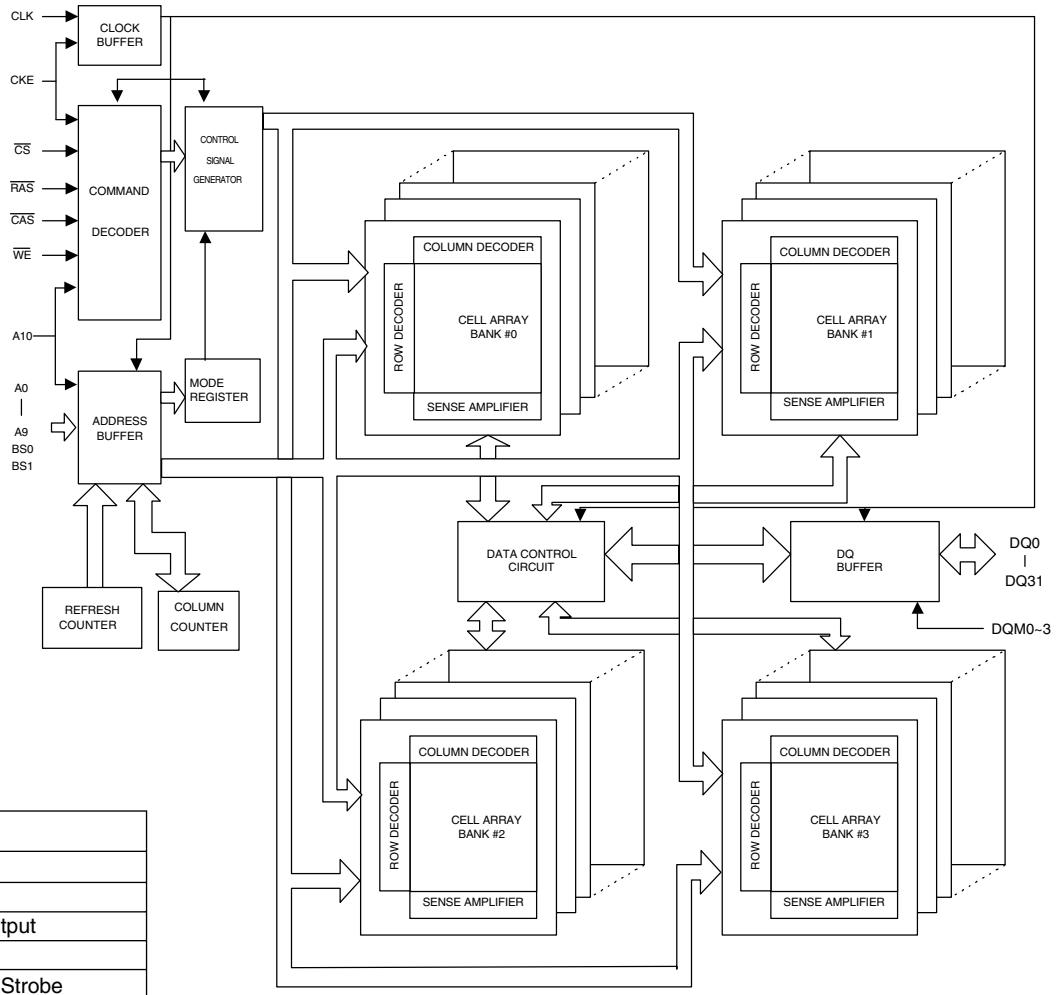
Pin No.	Symbol	I/O	Function
34	MEVO	O	SIGO Bottom Envelope Output. Bottom envelope for Mirror detection.
35	MIN	I	RF signal Input for Mirror. AC coupled inputs for the mirror detection circuit from the pull-in signal output. (PI)
36	PI	O	Pull-in Signal Output. The summing signal output of A,B,C,D or PD1, PD2 for mirror detection. Reference to VCI.
37	DFT	O	Defect Output. Pseudo CMOS output. When a defect is detected, the DFT output goes high. Also the servo AGC output can be monitored at this pin, When CAR bits 7-4 are '0011'.
38	TPH	-	PI Top Hold pin. An external capacitance is connected between this pin and VPB.
39	MEV	-	SIGO Bottom Envelope pin. An external capacitance is connected between this pin and VPB.
40	MEI	I	Mirror Envelope Input. The SIGO envelope input pin.
41	TE	O	Tracking Error Signal Output. Tracking error output reference to VCI.
42	FE	O	Focusing Error Signal Output. Focus error output reference to VCI.
43	CE	O	Center Error Signal Output. Center error out put reference to VCI.
44	LCN	-	Center Error LPF pin. An external capacitance is connected between this pin and the LCP pin.
45	LCP	-	Center Error LPF pin. An external capacitance is connected between this pin and the LCN pin.
46	SCLK	I	Serial Clock. Serial Clock CMOS input. The clock applied to this pin is synchronized with the data applied to SDATA. (Not to be left open).
47	SDATA	I/O	Serial Data. Serial data bi-directional CMOS pin. NRZ programming data for the internal registers is applied to this input. (Not to be left open)
48	SDEN	I	Serial Data Enable. Serial enable CMOS input. A high level input enables the serial port. (Not to be left open)
49	HOLD1	I	Hold Control. ATTL compatible control pin which, when pulled high, disables the RF AFC charge pump and holds the RE AGC amplifier gain at its present value. (open high)
50	VNA	-	Ground. Ground pin for the RF block and serial port.
51	FNN	O	Differential Normal Output. Filter normal outputs.
52	FNP	O	Differential Normal Output. Filter normal outputs.
53	DIP	I	Analog inputs for RF Single Buffer. Differential analog inputs to the RF single-ended output buffer and full wave rectifier.
54	DIN	I	Analog inputs for RF Single Buffer. Differential analog inputs to the RF single-ended output buffer and full wave rectifier.
55	RX	-	Reference Resistor Input. An external 8.2 kohm, 1% resistor is connected from this pin to ground to establish a precise PTAT (proportional to absolute temperature) reference current for the filter.
56	BYP	I/O	The RF AGC integration capacitor CBYP, is connected between BYP and VPA.
57	SIGO	O	Single Ended Normal Output. SIngle-ended RF output.
58	VPA	-	Power. Power supply pin for the RF block and serial port.
59	AIP	I	AGC Amplifier Inputs. Differential AGC amplifier input pins.
60	AIN	I	AGC Amplifier Inputs. Differential AGC amplifier input pins.
61	ATON	O	Differential Attenuator Output. Attenuator outputs.
62	ATOP	O	Differential Attenuator Output. Attenuator outputs.
63	CDRF	I	RF Signal Input. Single-ended RF signal attenuator input pin.
64	CDRFDC	O	CD RF Signal Output. Single ended CD RF summing output.

■ W986432DH (U5) : SDRAM

1. Pin layout



2. Block diagram

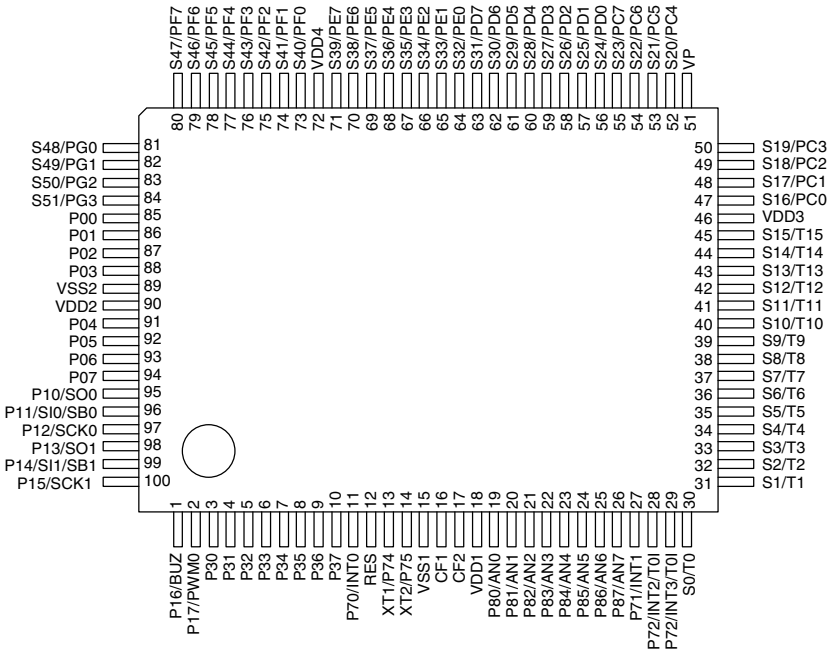


3. Pin function

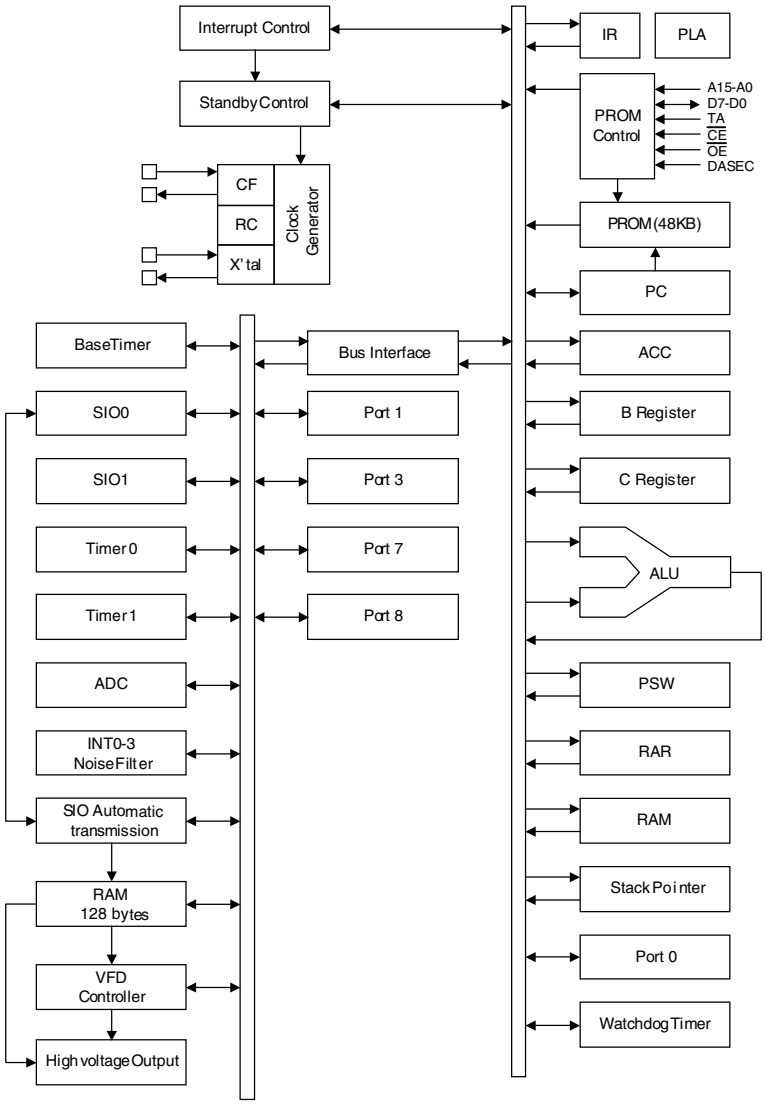
Symbol	Function
A0-A10	Address
BS0, BS1	Bank Select
DQ0-DQ31	Data Input/Output
$\overline{CS}$	Chip Select
$\overline{RAS}$	Row Address Strobe
$\overline{CAS}$	Column Address Strobe
$\overline{WE}$	Write Enable
DQM0-DQM3	Input/output mask
CLK	Clock Inputs
CKE	Clock Enable
VCC	Power(+3.3V)
VSS	Ground
VCCQ	Power(+3.3V) for I/O buffer
VSSQ	Ground for I/O buffer
NC	No Connection

■ LC86P6548 (UIC1) : Microcontroller

1.Pin layout

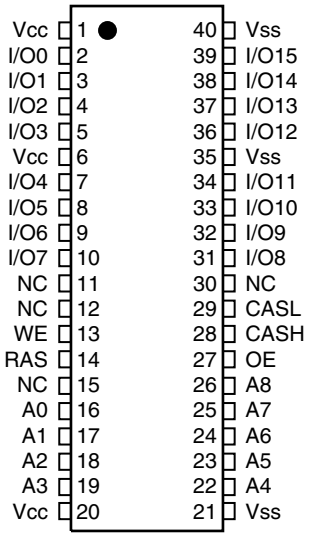


2.Block diagram



■ M11B416256A (U1) : DRAM

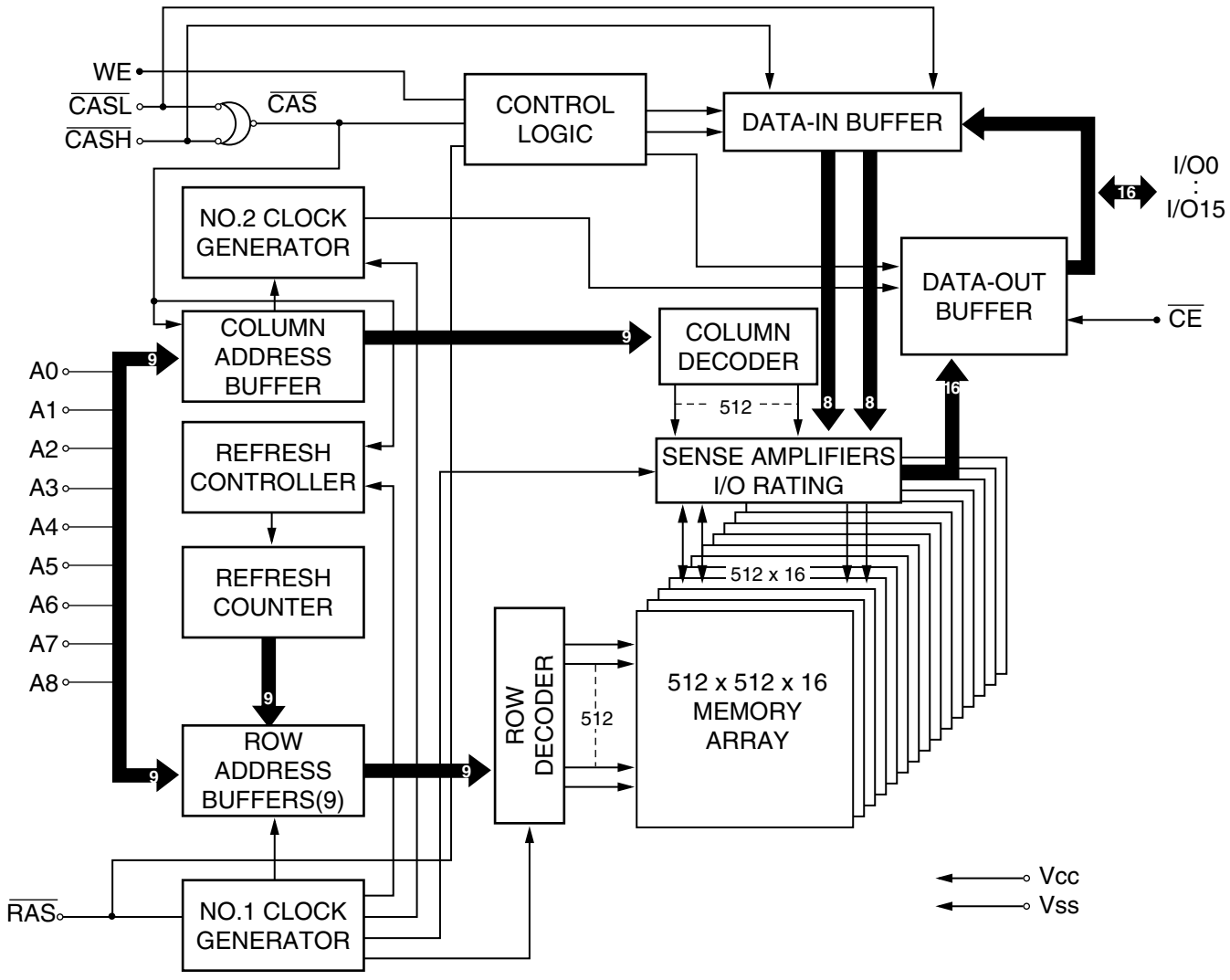
1. Pin layout



2. Pin function

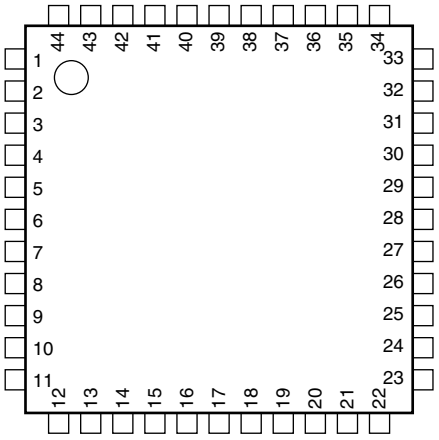
Pin No.	Symbol	I/O	Function
16~19,22~26	A0~A10	I	Address Input
14	RAS	I	Row Address Strobe
28	CASH	I	Column Address Strobe/Upper Byte Control
29	CASL	I	Column Address Strobe/Lower Byte Control
13	WE	I	Write Enable
27	OE	I	Output Enable
2~5,7~10,31~34,36~39	I/O0~I/O15	I/O	Data Input/ Output
1,6,20	Vcc	Supply	Power, 5V
21,35,40	Vss	Ground	Ground
11,12,15,30	NC	-	No Connect

3. Block diagram



■ M6759 (U3) : MTP microcontroller

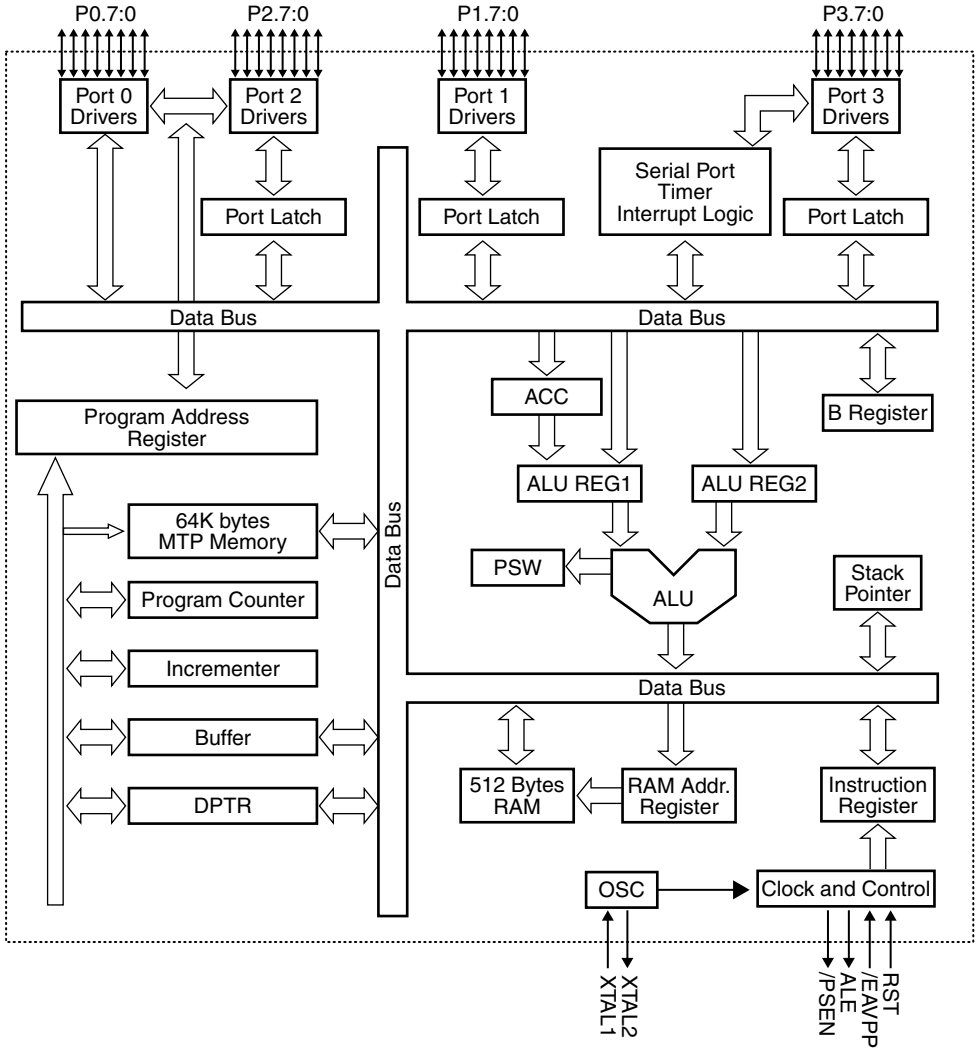
1. Pin layout



2. Pin function

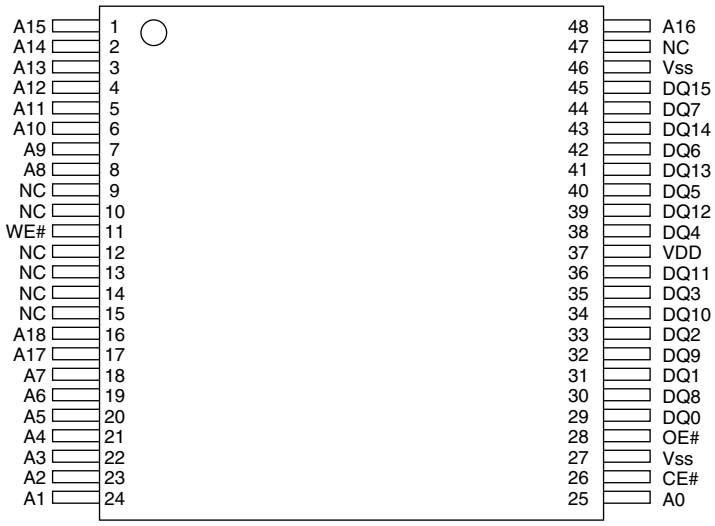
Pin No.	Symbol	I/O	Description
44	VDD	I	Power supply for internal operation, 5V input
22	GND	I	Ground
36,37,38,39,	P0.7-P0.0	I/O	8 bits bi-directional I/O port
40,41,42,43,	AD7-0	I/O	Multiplexed address/data bus
10	RST	I	Reset signal
21	XTAL1	I	Crystal In
20	XTAL2	O	Crystal out
32	/PSEN	O	Program Store Enable Output
33	ALE	O	Address Latch Enable
9,8,7,6,	P1.7-P1.0	I/O	8 bits bi-directional I/O port
5,4,3,2	T2EX(P1.1)	I	External timer/counter 2 trigger
	T2(P1.0)	I	External timer/counter 2.
31,30,29,28,	P2.7	I/O	8 bits bi-directional I/O port
27,26,25,24	A15-A8	O	
19,18,17,16,	P3.7-P3.0	I/O	8-bit bi-directional I/O port
15,14,13,11	/RD(P3.7)	O	External data memory read strobe
	/WR(P3.6)	O	External data memory write strobe
	T1(P3.5)	I	External timer/counter 1
	T0(P3.4)	I	External timer/counter .
	/INT1(P3.3)	I	External interrupt 1 (Negative Edge Detect)
	/INT0(P3.2)	I	External interrupt 0 (Negative Edge Detect)
	TXD(P3.1)	O	Serial port output
	RXD(P3.0)	I	Serial port input
35	/EAVPP	I	
1,12,23,34	NC	-	

3. Block diagram

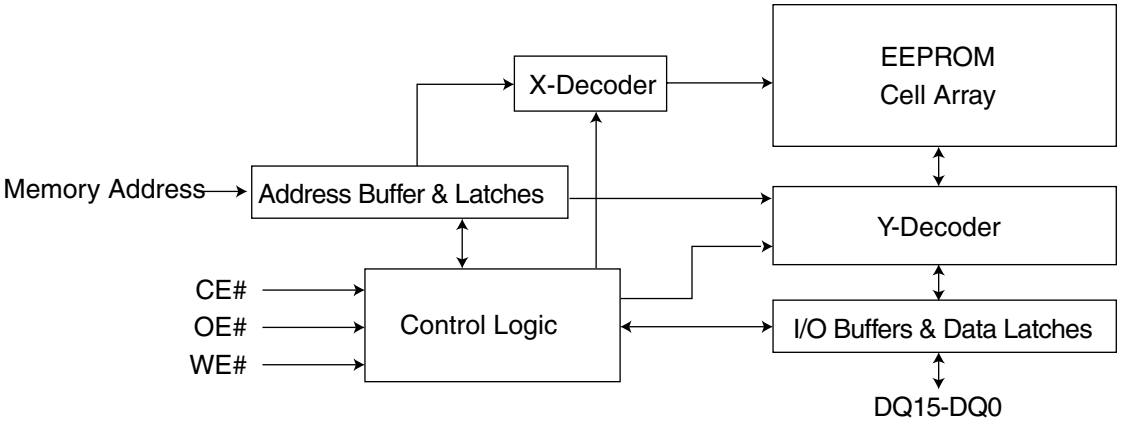


■ SST39VF800A (U6) : 8M Flash memory

1. Pin layout



2. Block diagram

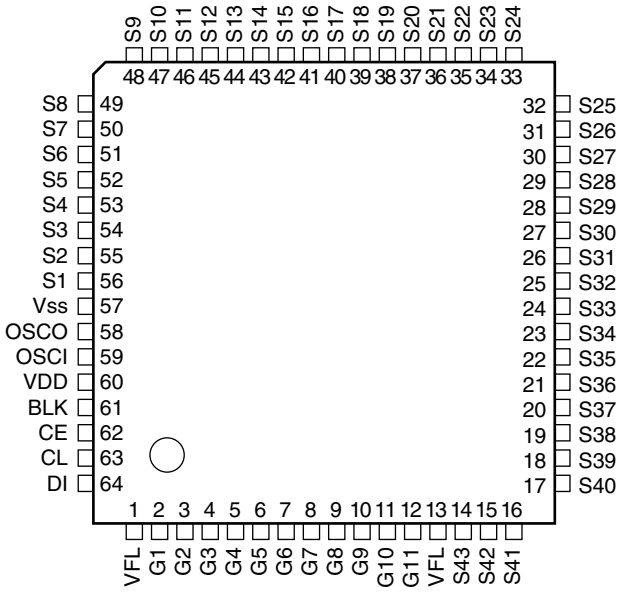


3. Pin function

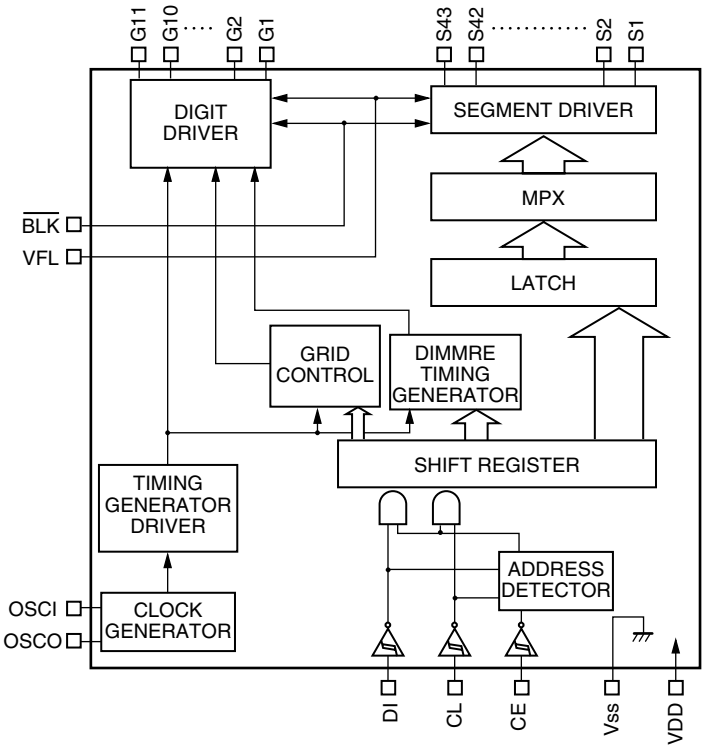
Symbol	Pin name	Function
AMS- A0	Address Inputs	To provide memory addresses. During Sector-Erase AMS-A11 address lines will select the sector. During Block-Erase AMS-A15 address lines will select the block.
DQ15- DQ0	Data Input/Output	To output data during Read cycles and receive input data during Write cycles. Data is internally latched during a Write cycle. The outputs are in tri-state when OE# or CE# is high.
CE#	Chip Enable	To activate the device when CE# is low.
OE#	Output Enable	To gate the data output buffers.
WE#	Write Enable	To control the Write operations.
VDD	Power Supply	To provide power supply voltage: 2.7-3.6V
Vss	Ground	
NC	No Connection	Unconnected pins.

■ LC75725E (UIC10) : VFD driver

1. Pin layout



2. Block diagram

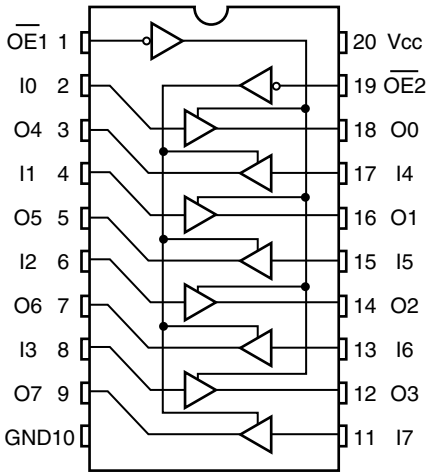


3. Pin function

Pin No.	Symbol	I/O	Function
1,13	VFL	-	Driver block power supply connection. (Both pins must be connected.)
60	VDD	-	Logic block power supply connection. Provide a voltage between 4.5 and 5.5V.
57	Vss	-	Power supply connection. Connect to the ground.
59	OSCI	I	Oscillator connection. An oscillator circuit is formed by connecting an external resistor and capacitor to these pins.
58	OSCO	O	
61	$\overline{BLK}$	I	Display off contort input. BLK = Low (Vss)...Display off.(S1 toS43 and G1 to G11 at VFL level.) BLK = High (VDD)...Display on. Note that serial data can be transferred while the display is turned off.
63	CL	I	Serial data transfer inputs. These pins must be connected to the system microcontroller. CL: Synchronization clock DI: Transfer data CE: Chip enable
64	DI		
62	CE		
2-12	G1-G11	O	Digit outputs. These pins are P-channel open drain outputs with pull-down resistors.
56-14	S1-S43	O	Segment outputs for displaying the display data transferred by serial data input. These pin are P-channel open drain outputs with pull-down resistors.

■ 74VHCT244A (DIC12) : Buffer/Line driver

1. Pin layout



2. Pin function

Symbol	Function
$\overline{OE1}$,$\overline{OE2}$	3-STATE Output Enable Inputs
I0-I7	Inputs
O0-O7	3-STATE Outputs

3. Truth table

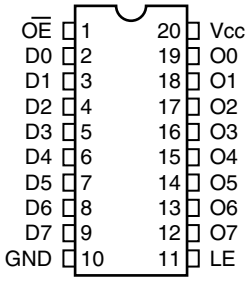
Inputs		Outputs (Pins12,14,16,18)
$\overline{OE1}$	In	
L	L	L
L	H	H
H	X	Z

Inputs		Outputs (Pins3,5,7,9)
$\overline{OE2}$	In	
L	L	L
L	H	H
H	X	Z

H:HIGH Voltage Level
L:LOW Voltage Level
I:Immaterial
Z:High Impedance

■ 74LVT573 (U10, U11, U12) : Latch

1. Pin layout



2. Pin function

Symbol	Function
D0-D7	Data Inputs
LE	Latch Enable Input
OE	Output Enable Input
O0-O7	3-STATE Latch Outputs

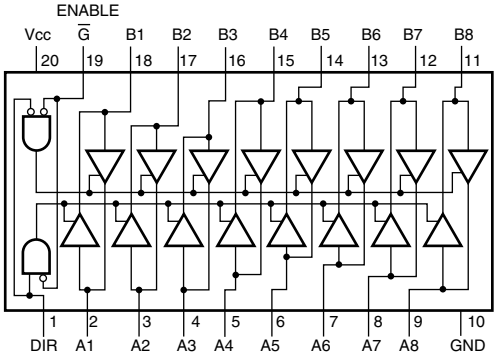
3. Truth table

Inputs			Outputs
LE	OE	Dn	On
X	H	X	Z
H	L	L	L
H	L	H	H
L	L	X	O0

H:HIGH Voltage Level
L:LOW Voltage Level
Z:High Impedance
X:Immaterial
O0:Previous O0 before HIGH to LOW transition of Latch Enable

■ MM74HCT245 (U15) : Transceiver

1. Pin layout



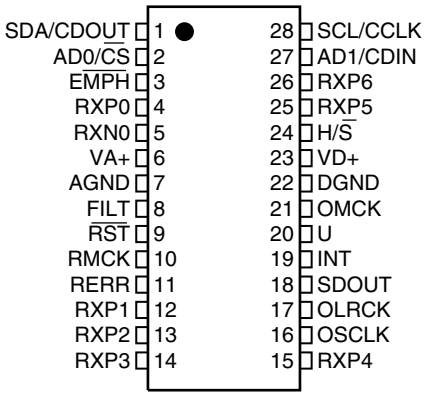
2. Truth table

Control Inputs		Operation
$\overline{G}$	DIR	245
L	L	B data to A bus
L	H	A data to B bus
H	X	isolation

H=HIGH Level
L=LOW Level
X=Irrelevant

■ CS8415A (DIC14) : Digital audio receiver

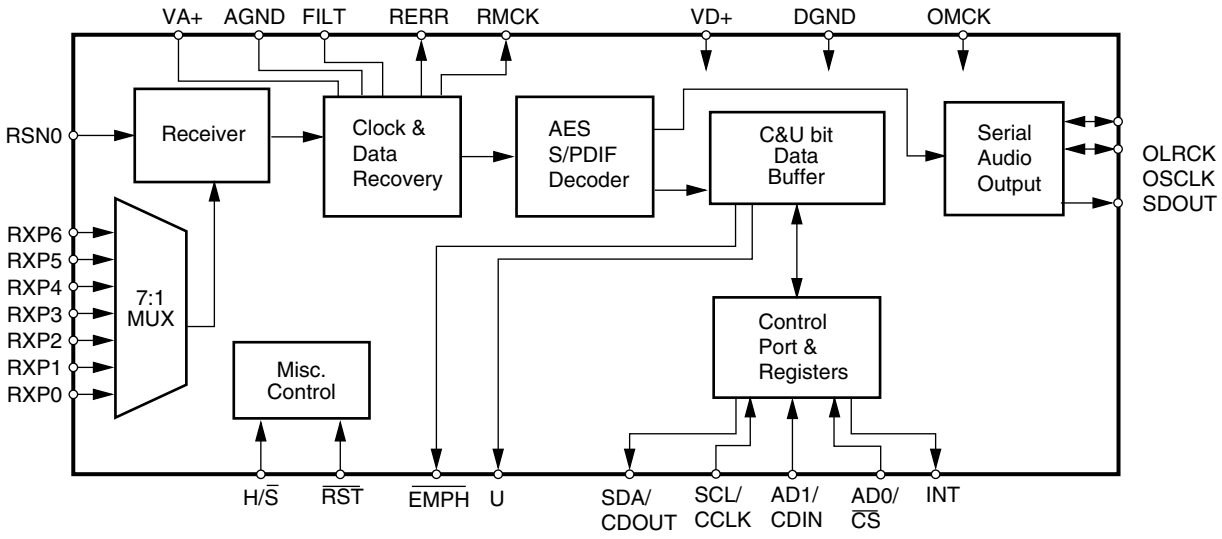
1. Pin layout



2. Pin function

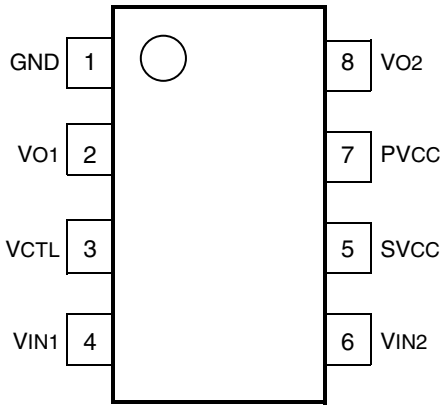
Pin No.	Symbol	I/O	Function
1	SDA/CDOUT	I/O	Serial Control Data I/O(I2C) / Data Out(SPI)
2	AD0/$\overline{CS}$	I/O	Address Bit 0(I2C) / Control Port Chip Select(SPI)
3	$\overline{EMPH}$	O	Pre-Emphasis
4 5	RXP0 RXN0	I	AES3/SPDIF Receiver Power
6	VA+	I	Positive Analog Power
7	AGND	I	Analog Ground
8	FILT	O	PLL Loop Filter
9	$\overline{RST}$	O	Reset
10	RMCK	I/O	Input Section Recovered Master Clock
11	RERR	O	Receiver Error
12,13 14,15 25,26	RXP1,RXP2 RXP3,RXP4 RXP5,RXP6	I	Additional AES3/SPDIF Receiver Port
16	OSCLK	I/O	Serial Audio Output Bit Clock
17	OLRCK	I/O	Serial Audio Output Left/Right Clock
18	SDOUT	O	Serial Audio Output Data
19	INT	O	Interrupt
20	U	O	User Data
21	OMCK	I	System Clock
22	DGND	I	Digital Ground
23	VD+	I	Positive Digital Power
24	H/$\overline{S}$	I	Hardware/Sofrware Mode Control
27	AD1/CDIN	I	Address Bit 1(I2C) / serial Control Data in (SPI)
28	SCL/CCLK	I	Control Port Clock

3. Block diagram

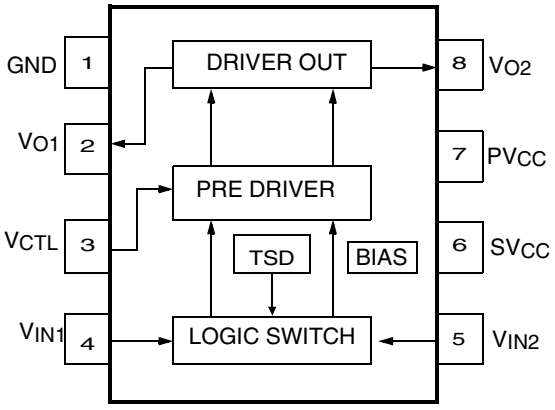


■ FAN8082 (U10) : DC motor driver

1.Pin layout



2. Block diagram

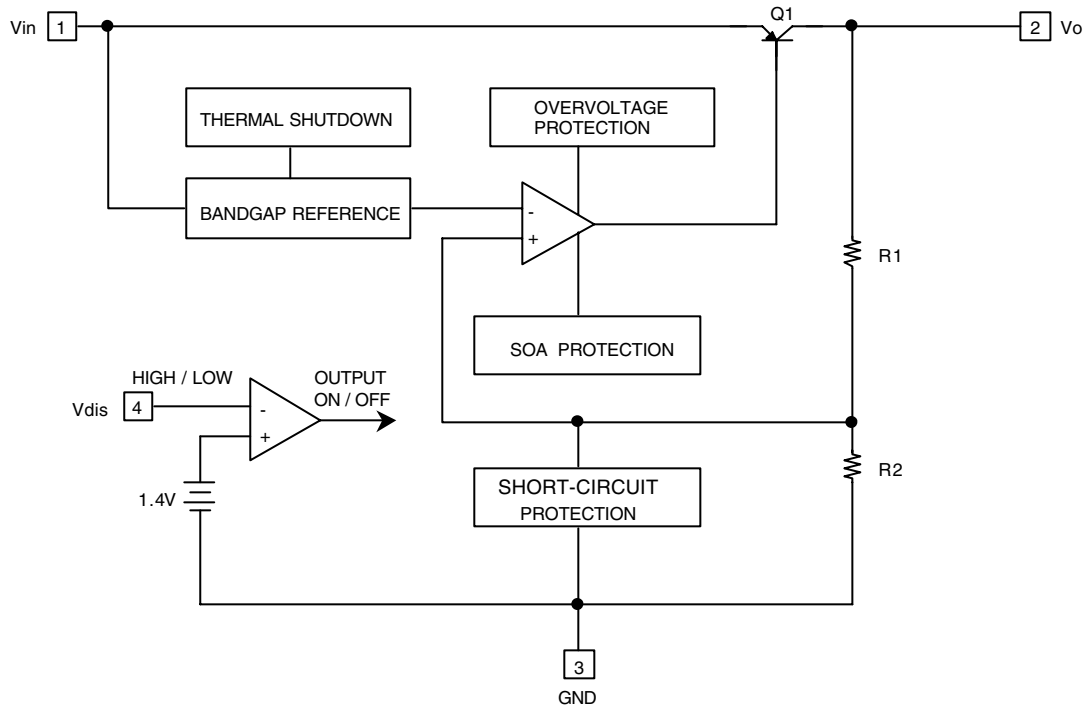


3. Pin function

Pin No.	Symbol	I/O	Function
1	GND	-	Ground
2	V_{O1}	O	Output 1
3	V_{CTL}	I	Motor speed control
4	V_{IN1}	I	Input 1
5	V_{IN2}	I	Input 2
6	SV_{CC}	-	Supply voltage (Signal)
7	PV_{CC}	-	Supply voltage (Power)
8	V_{O2}	O	Output 2

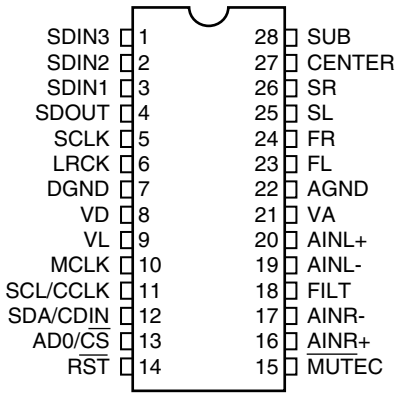
■ KA78R05 (PQ2,PQ6)/ KA78R08 (PQ5)/ KA278R05 (PQ1)/ KA278R33 (PQ4) : Regulator

1. Block diagram



■ CS4228A (DIC15) : D/A converter

1. Pin layout

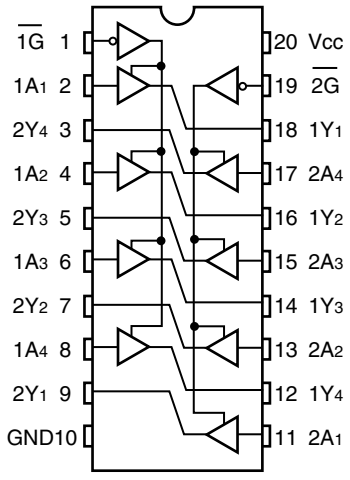


2. Pin function

Pin No.	Symbol	Function
1,2,3	SDIN1 SDIN2 SDIN3	Serial Audio Data In
4	SDOUT	Serial Audio Data Out
5	SCLK	Serial Clock
6	LRCK	Left/Right Clock
7	DGND	Digital Ground
8	VD	Digital Power
9	VL	Digital Interface Power
10	MCLK	Master Clock
11	SCL/CCLK	Serial Control Interface Clock
12	SDA/CDIN	Serial Control Data I/O
13	ADO/$\overline{CS}$	Address Bit 0/ Chip Select
14	$\overline{RST}$	Reset
15	MUTEC	Mute Control
16,17 19,20	AINR+,AINR- AINL+,AINL-	Differential Analog Inputs
18	FILT	Internal Voltage Filter
21	VA	Analog Power
22	AGND	Analog Ground
23,24,25 26,27,28	FR,FL,SR,SL SUB,CENTER	Analog Outputs

■ 74LCX244 (DIC13) : Bus buffer

1. Pin layout



2. Pin function

Pin No.	Symbol	Function
1	$\overline{1G}$	Output Enable Input
2,4,6,8	1A1 to 1A4	Data Inputs
9,7,5,3	2Y1 to 2Y4	Data Outputs
11,13,15 17	2A1 to 2A4	Data Inputs
18,16,14 12	1Y1 to 1Y4	Data Outputs
19	$\overline{2G}$	Outputs Enable Input
10	GND	Ground(0V)
20	Vcc	Positive Supply Voltage

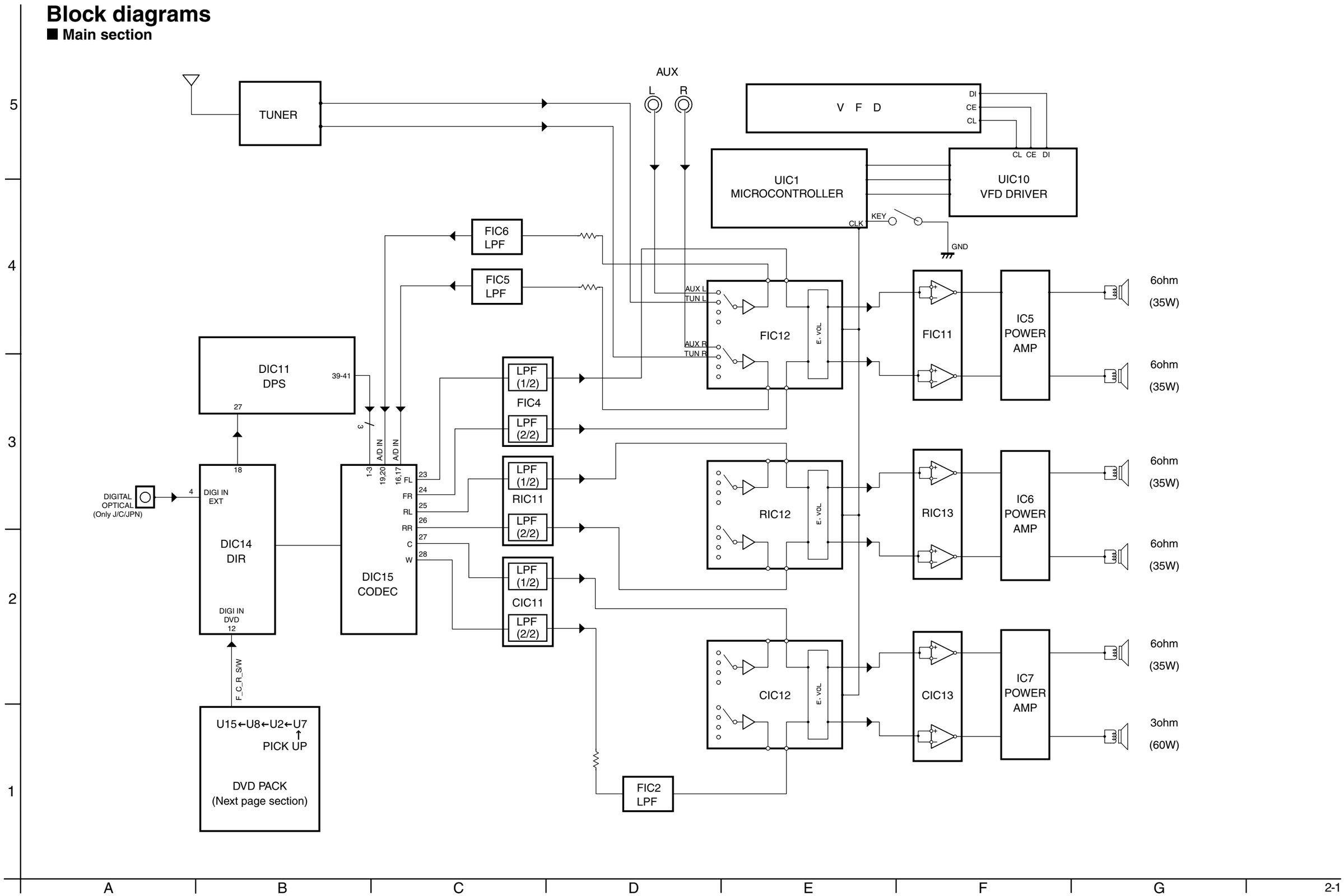
3. Truth table

INPUT		OUTPUT
$\overline{G}$	An	Yn
L	L	L
L	H	H
H	X	Z

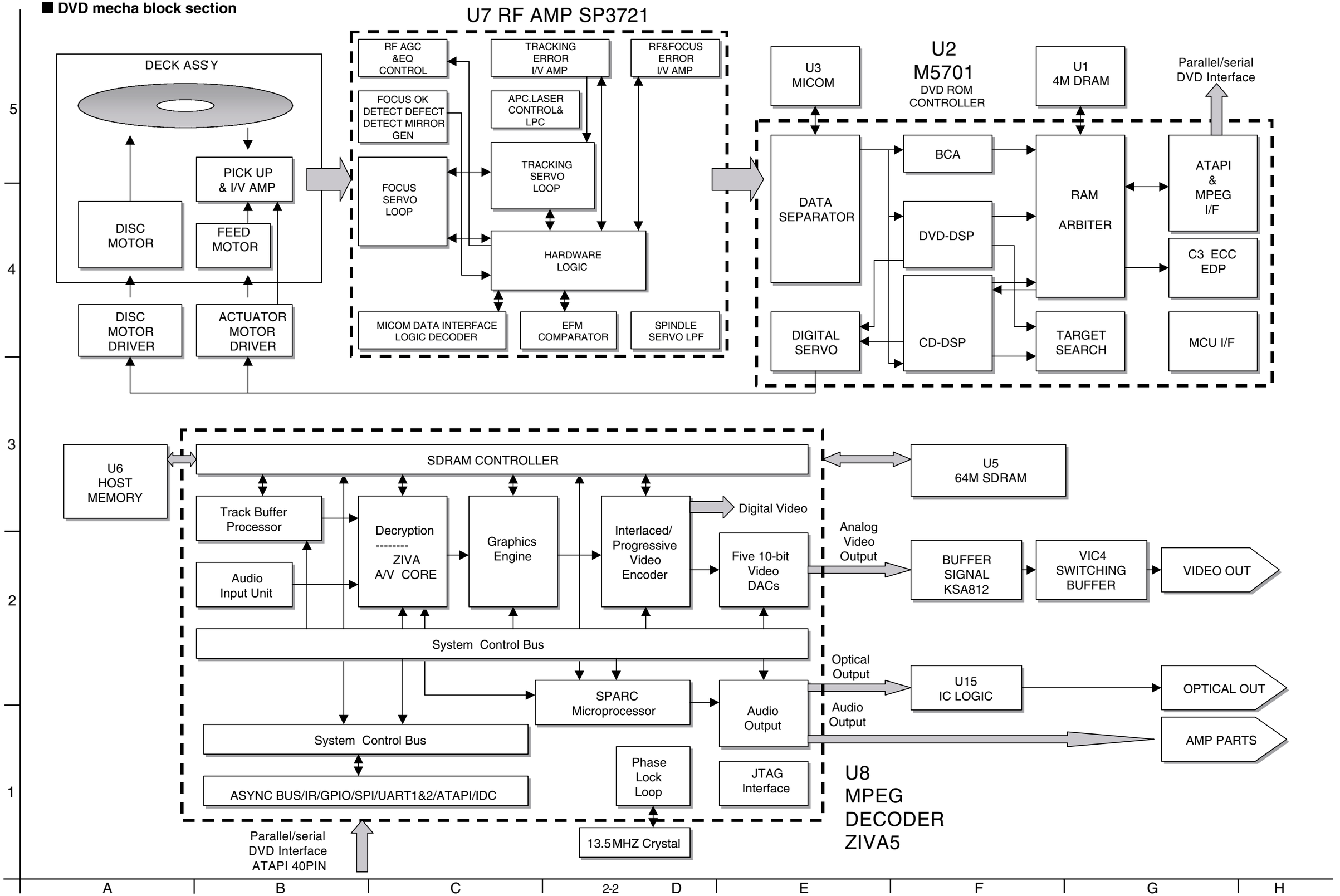
X:"H"or"L"
Z:High impedance

Block diagrams

■ Main section

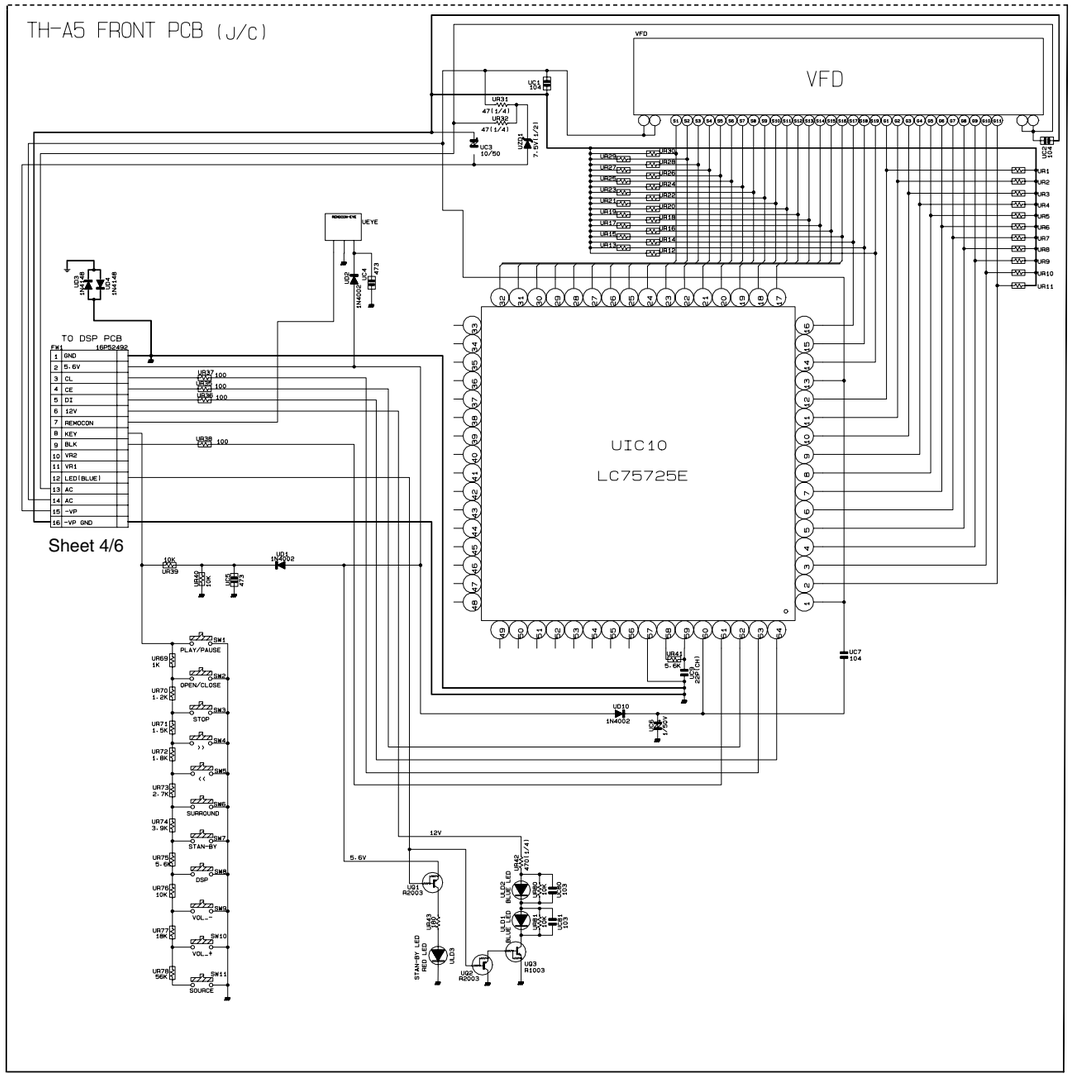


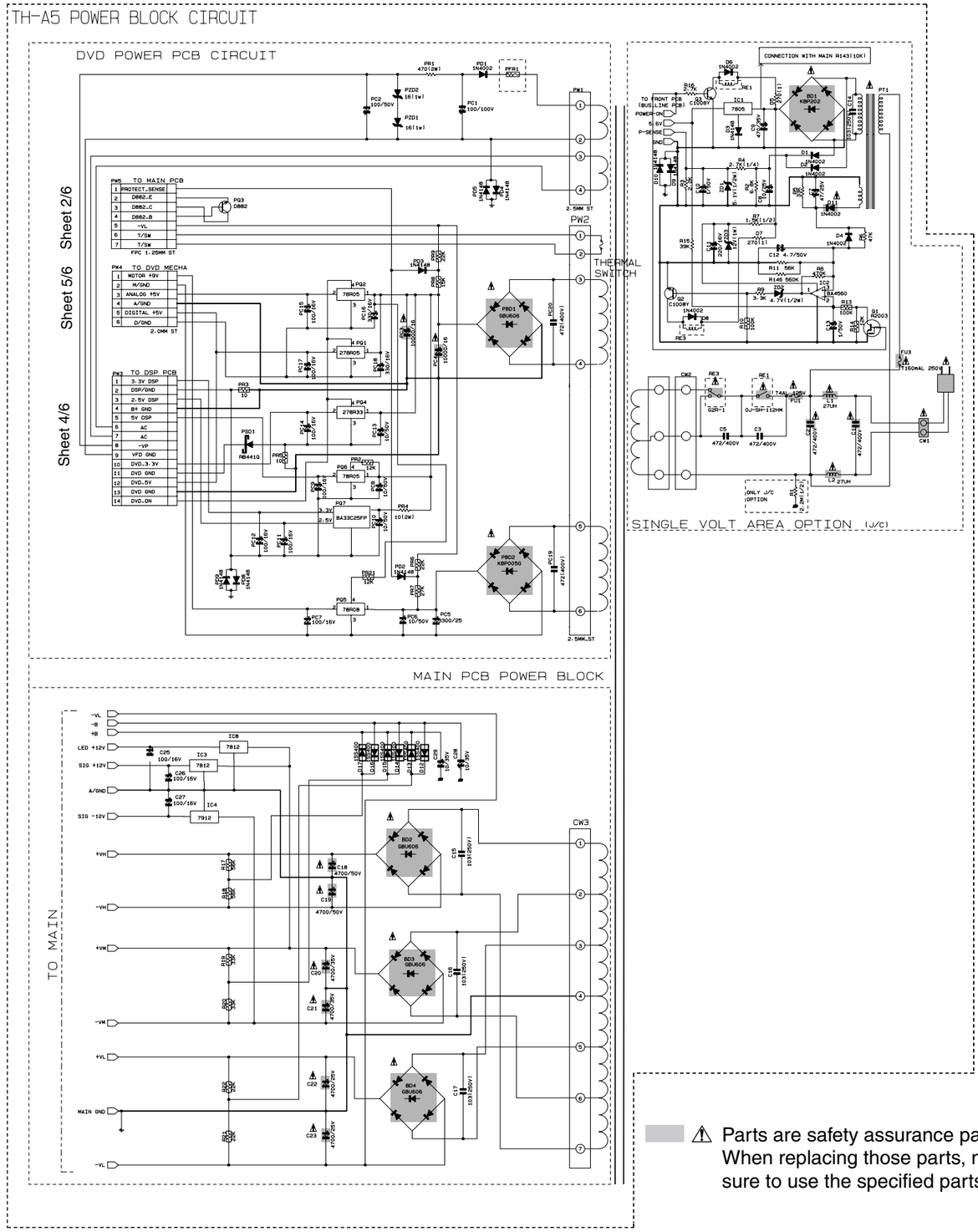
■ DVD mecha block section



Standard schematic diagrams

■ FL display & System control section / Power supply section





SHEET NUMBER	CIRCUIT DESCRIPTION
1/6	FL display & System control / Power supply
2/6	Main
3/6	Video signal output
4/6	DSP
5/6	DVD loader
6/6	DVD MPEG

⚠ Parts are safety assurance parts. When replacing those parts, make sure to use the specified parts.

■ Main section

(AMP+PROTECTION+FAN)

To Tuner Pack

To DW14
Sheet 4/6

To DW10
Sheet 4/6

To DW13
Sheet 4/6

To PW5
Sheet 1/6

MAIN PCB POWER BLOCK

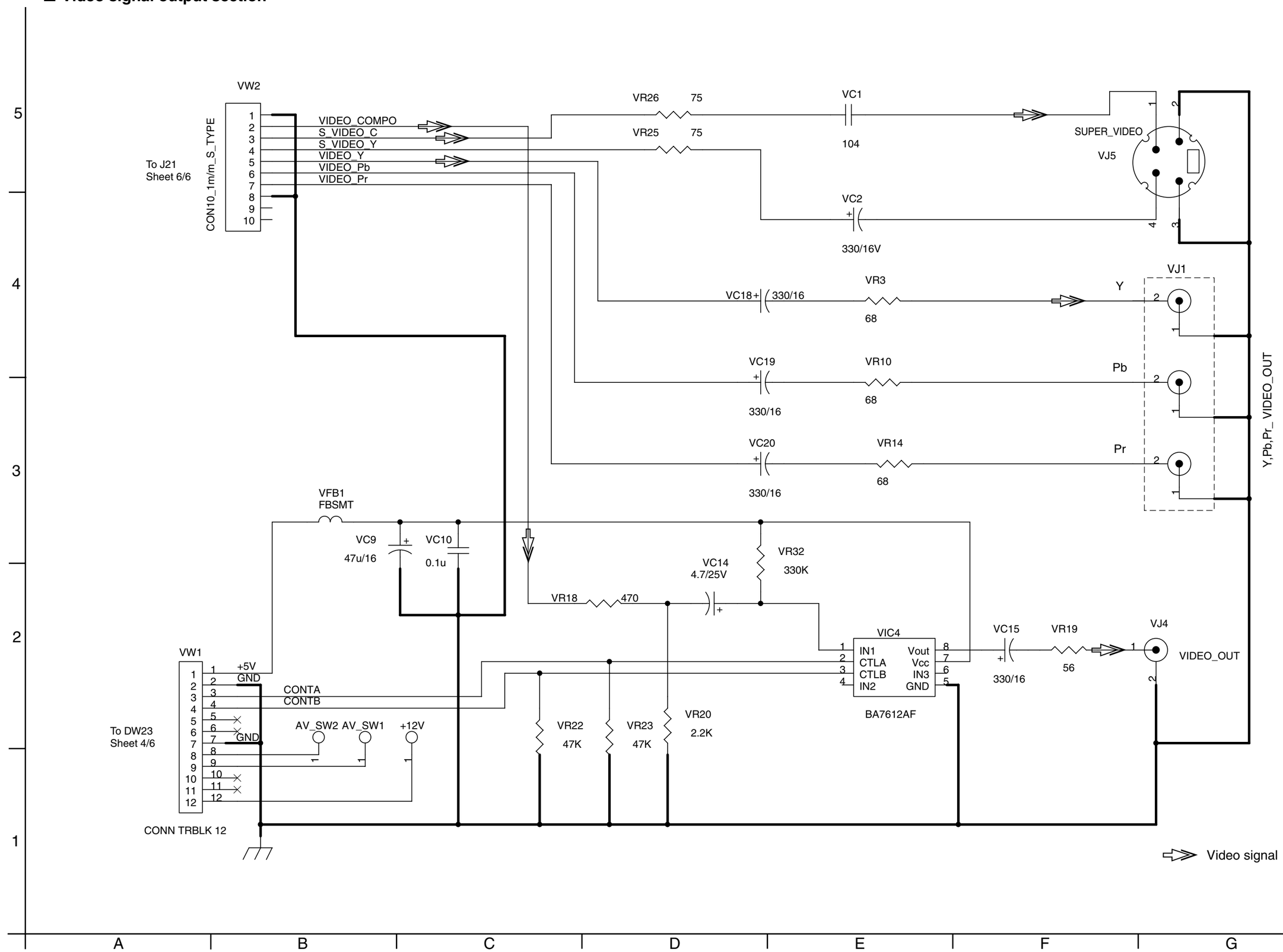
hFE RANK	
D1691	Y
B1151	Y
C1008	Y
A709	Y
C945	Y
A733	Y
A708	Y
C1009	Y

SUB P/T
2th OUT

Tuner signal
Front signal
Center signal
Rear signal

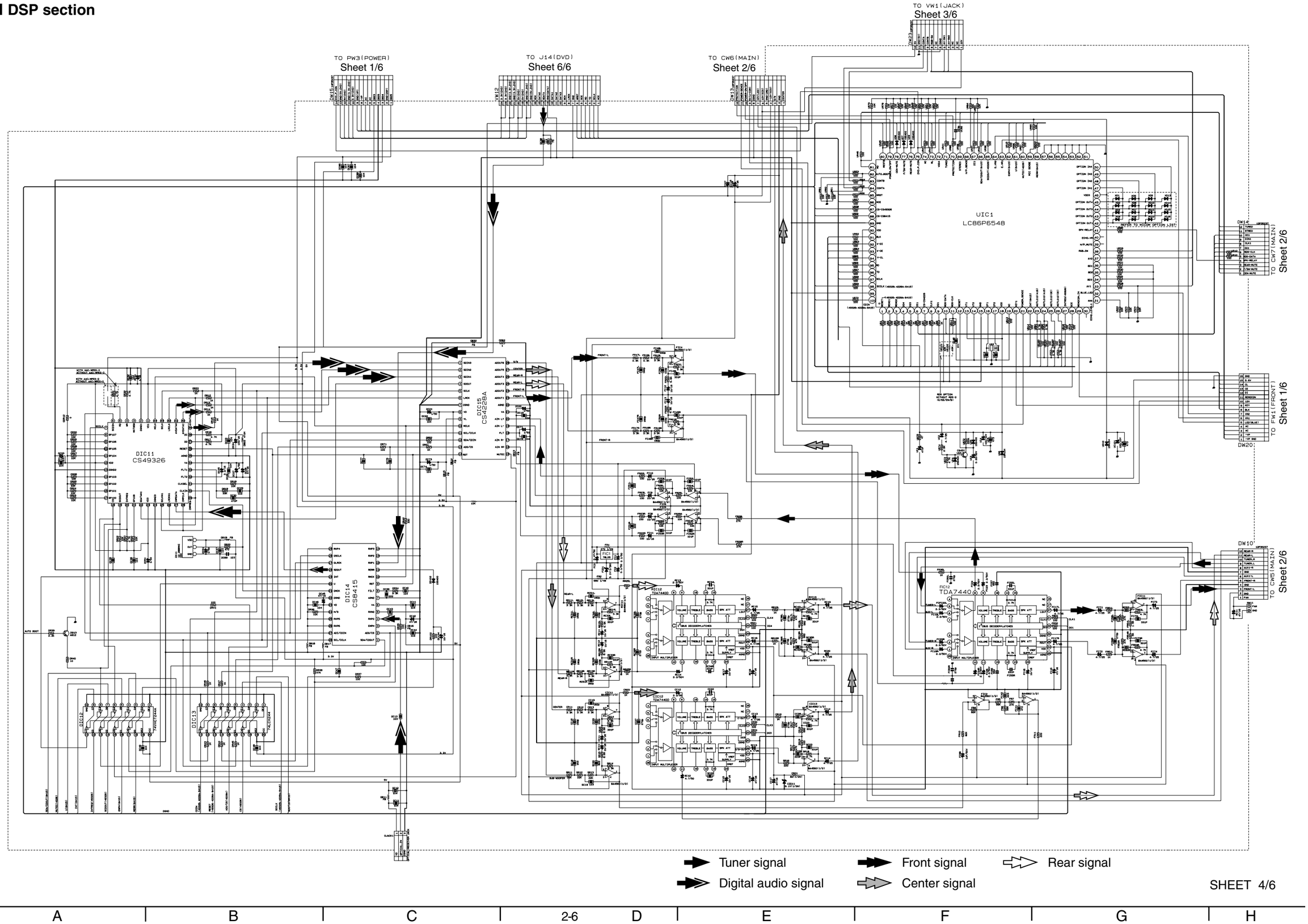
SHEET 2/6

■ Video signal output section



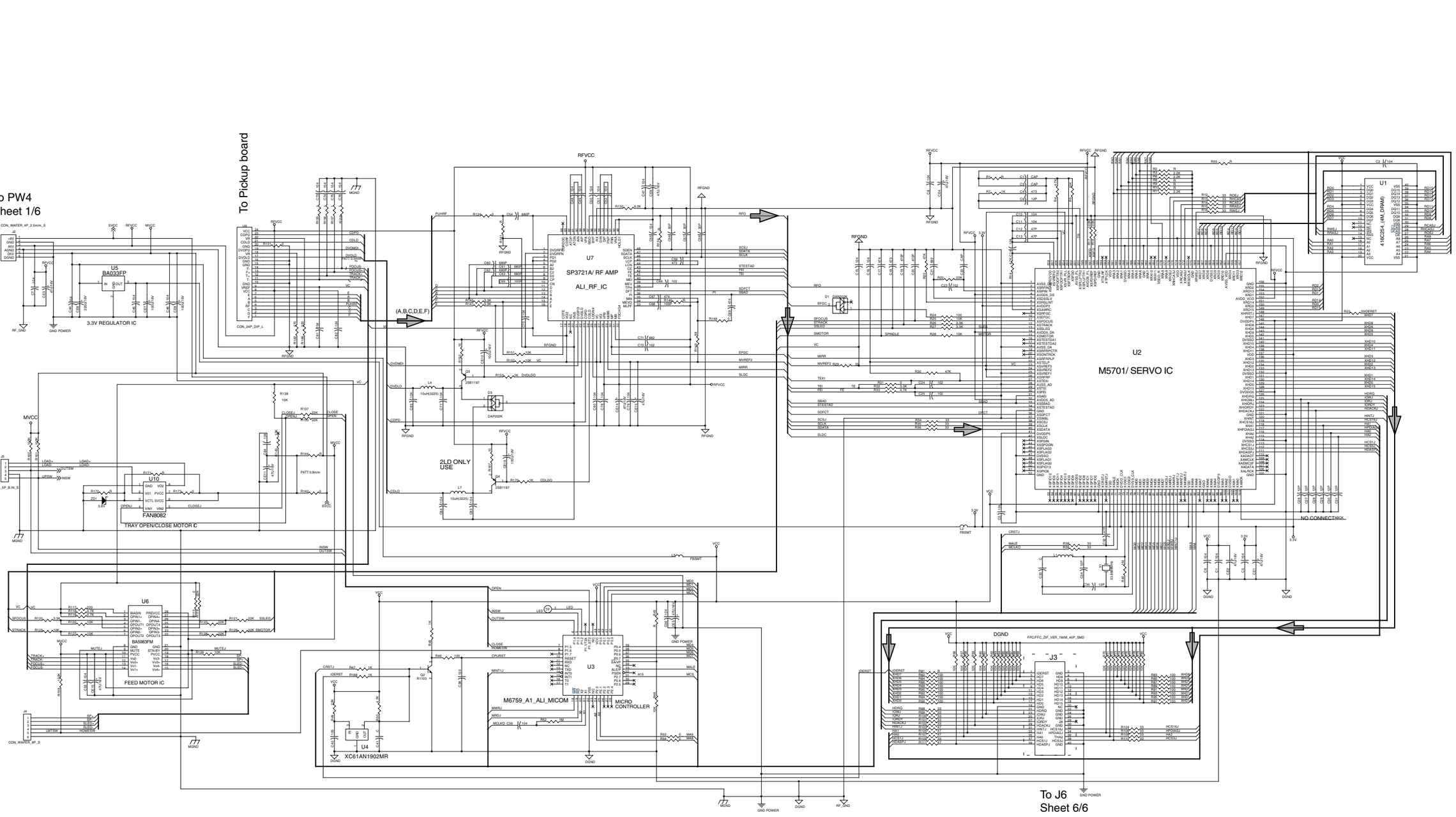
SHEET 3/6

■ DSP section



SHEET 4/6

■ DVD loader section



■ DVD MPEG section

I_SAT_OPT(DEL)

To VW2
Sheet 3/6

To VW12
Sheet 4/6

Front Panel Board
Connector

74HCT245
COMS LOGIC/TRANSCEIVER

FPC_CON24P_SMD
WAFER_1m/m

U8
ZiVA-5Xi MPEG DECODER

HOST MEMORY

U6
SST39VF800A
8M FLASH MEMOR

BICMOS LOGIC

U10 74LVT573
U11 74LVT573
U12 74LVT573

U5
SDRAM
MEMORY
WINBOND_W986432DH

ATAPI
CONNECTOR

To J3
Sheet 5/6

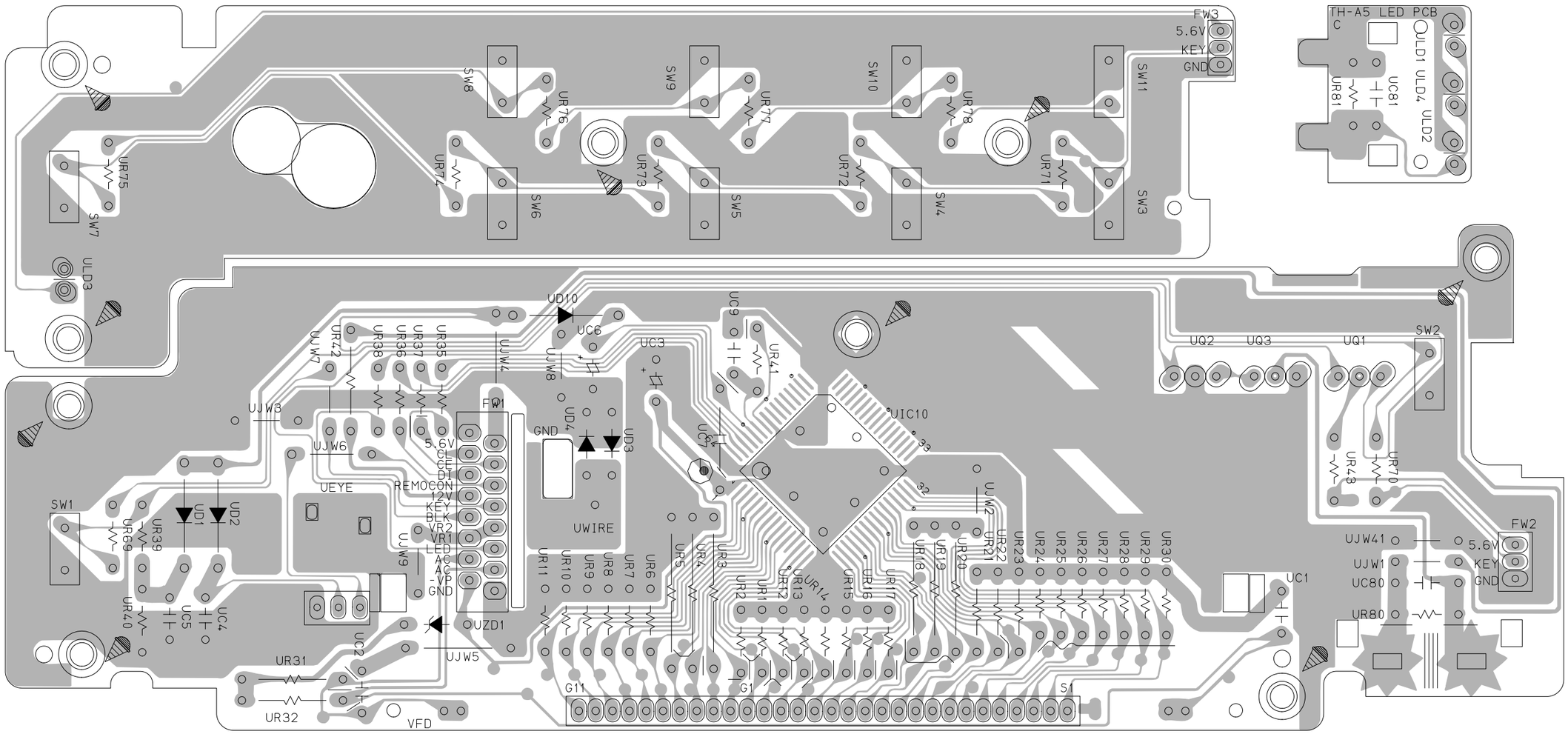
Digital data signal
Digital audio signal
Video signal

SHEET 6/6

Printed circuit boards

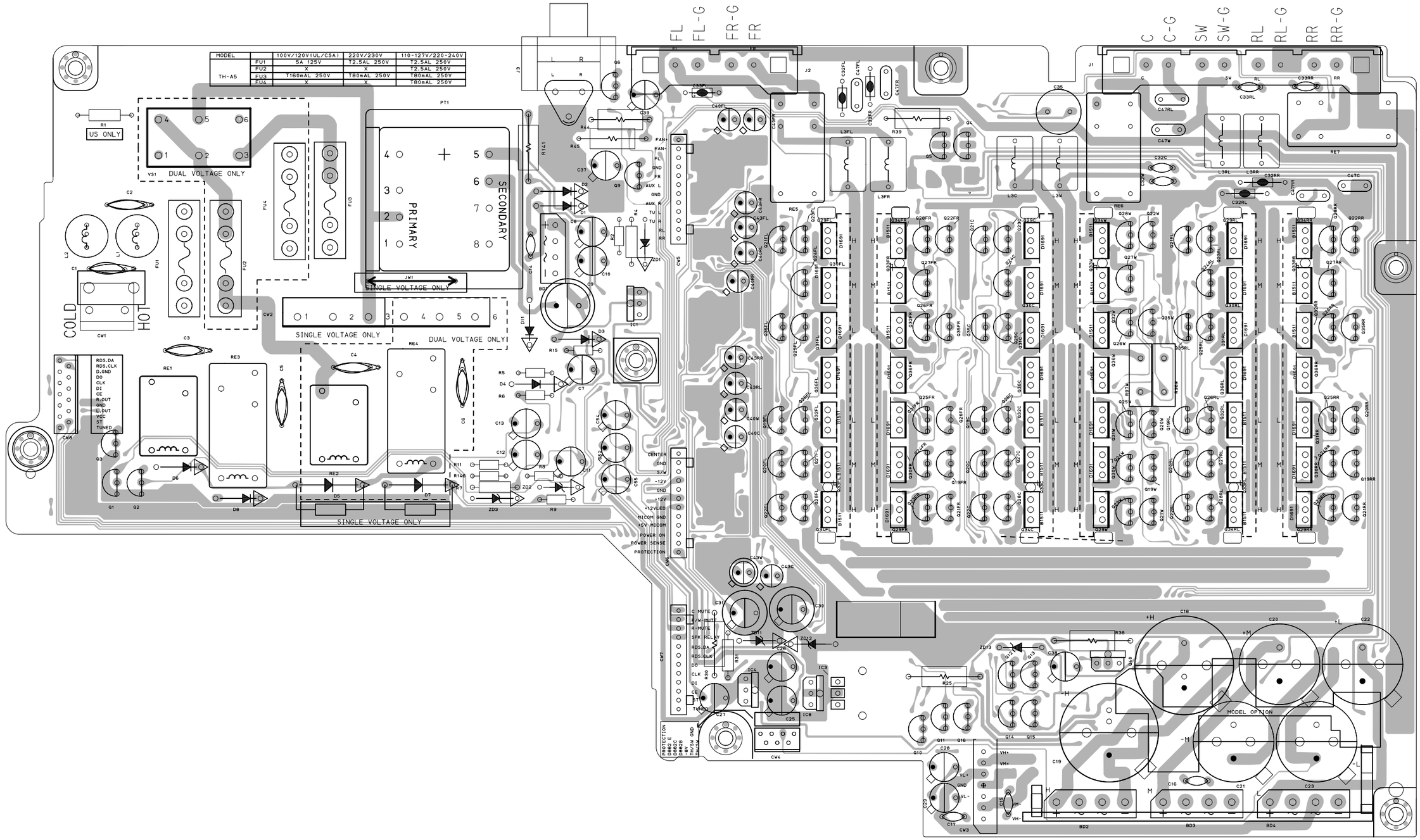
■ Front board

Switch board

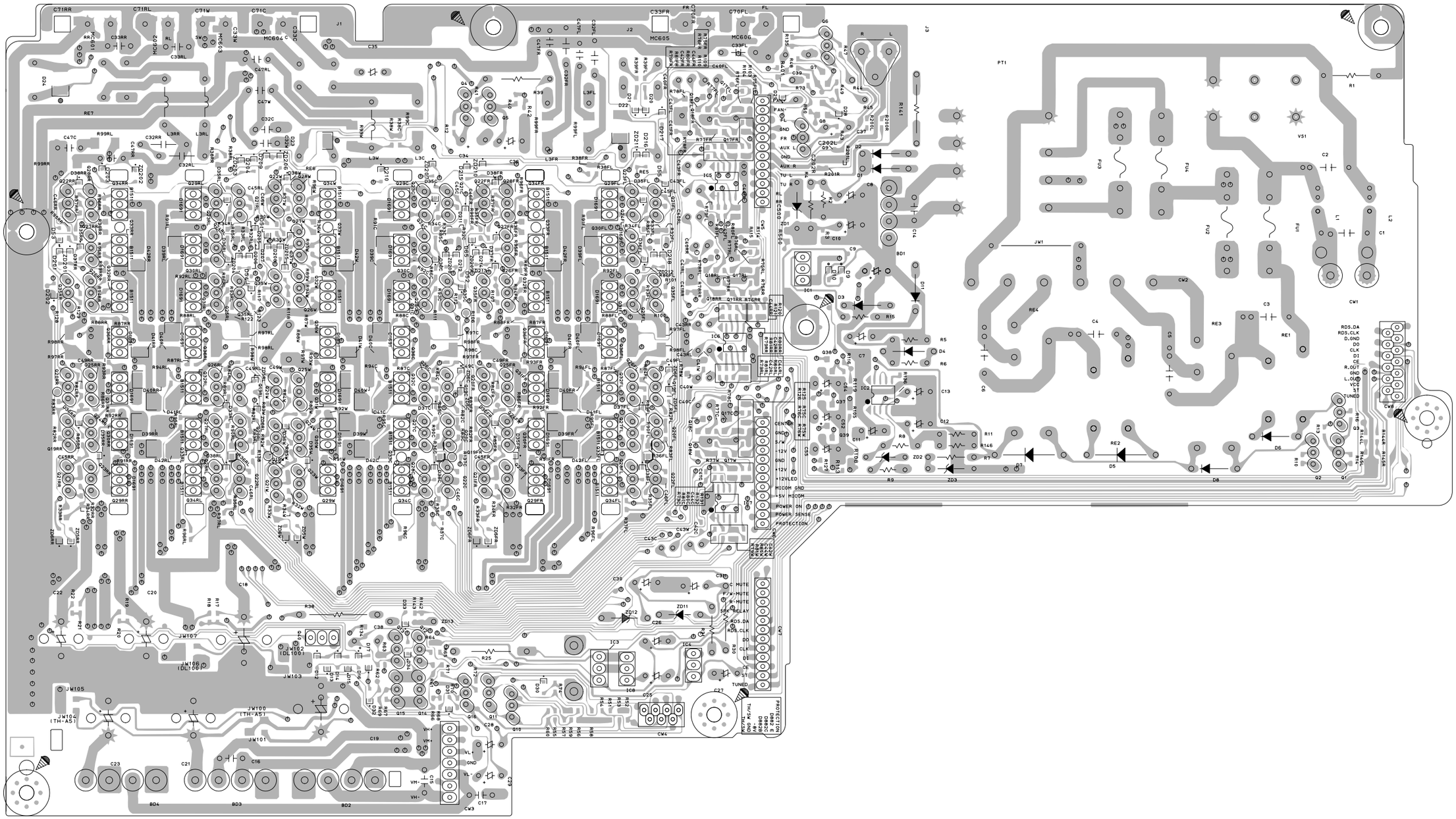


Display board

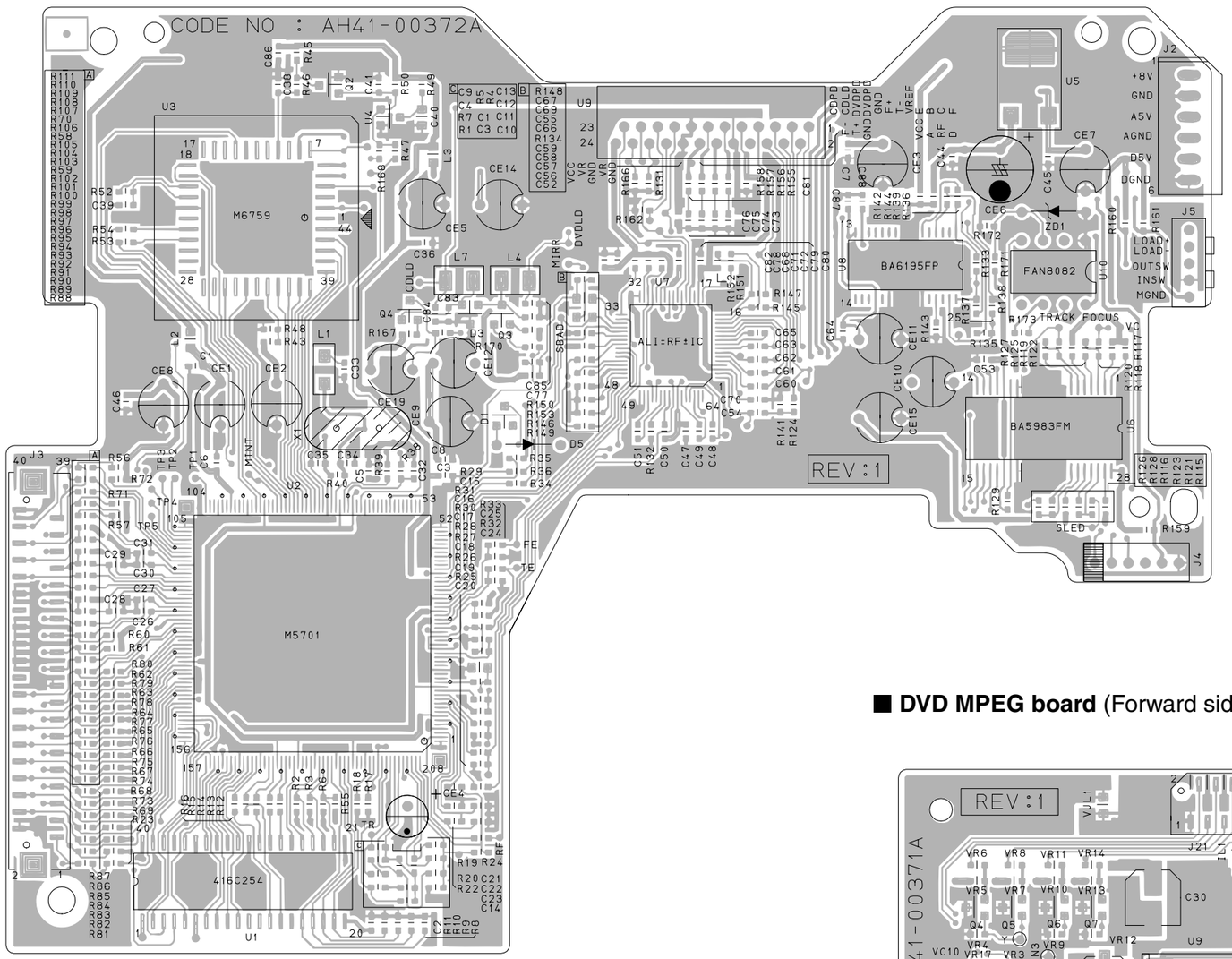
■ **Main board** (Forward side)



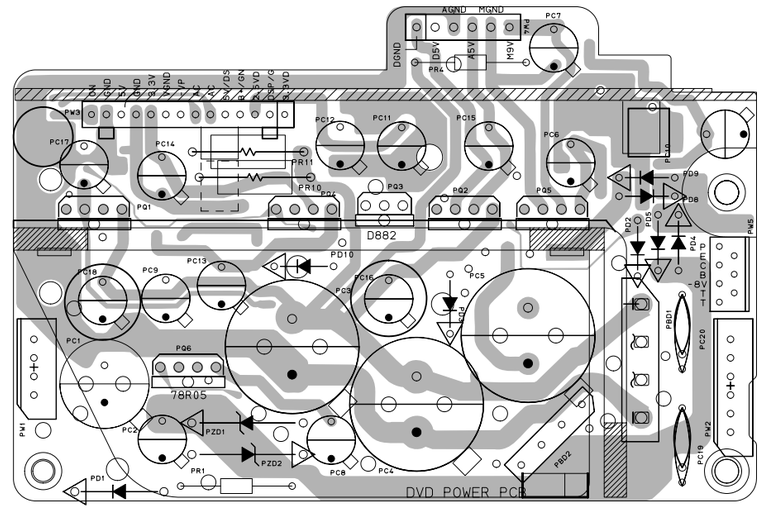
■ **Main board** (Reverse side)



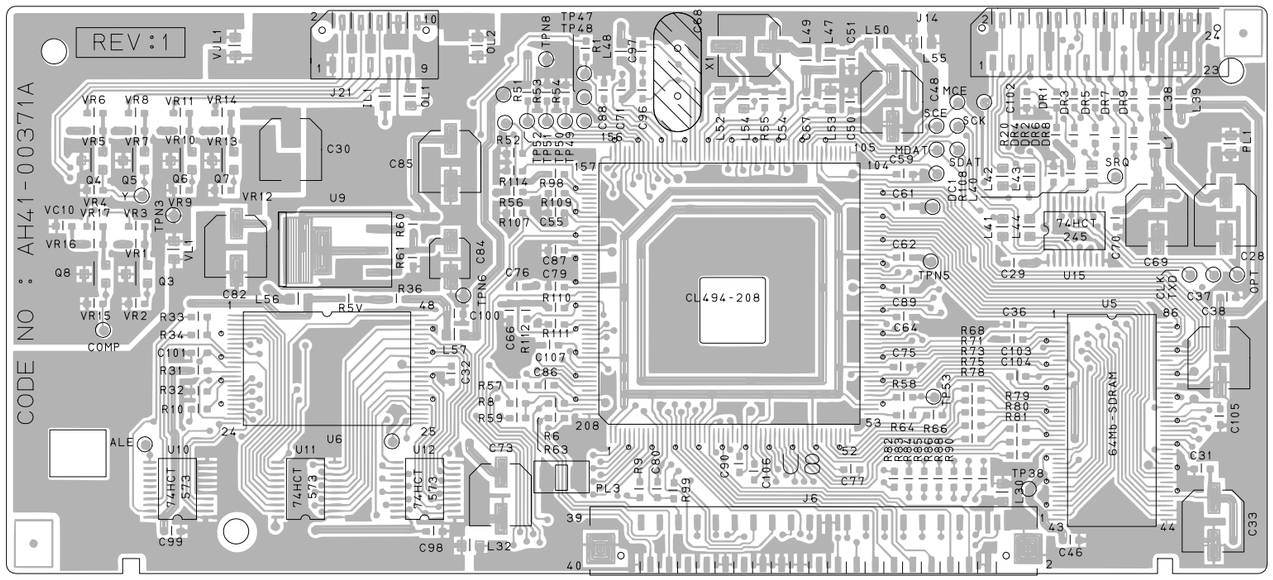
■ **DVD loader board** (Forward side)



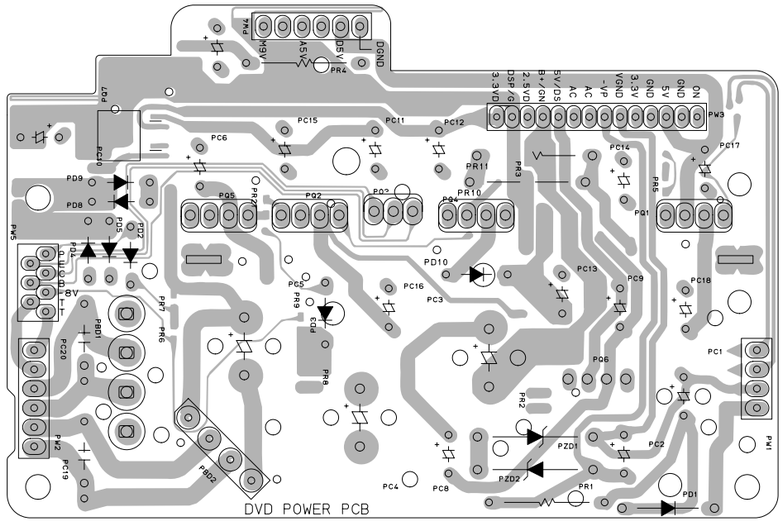
■ **DVD power board** (Forward side)



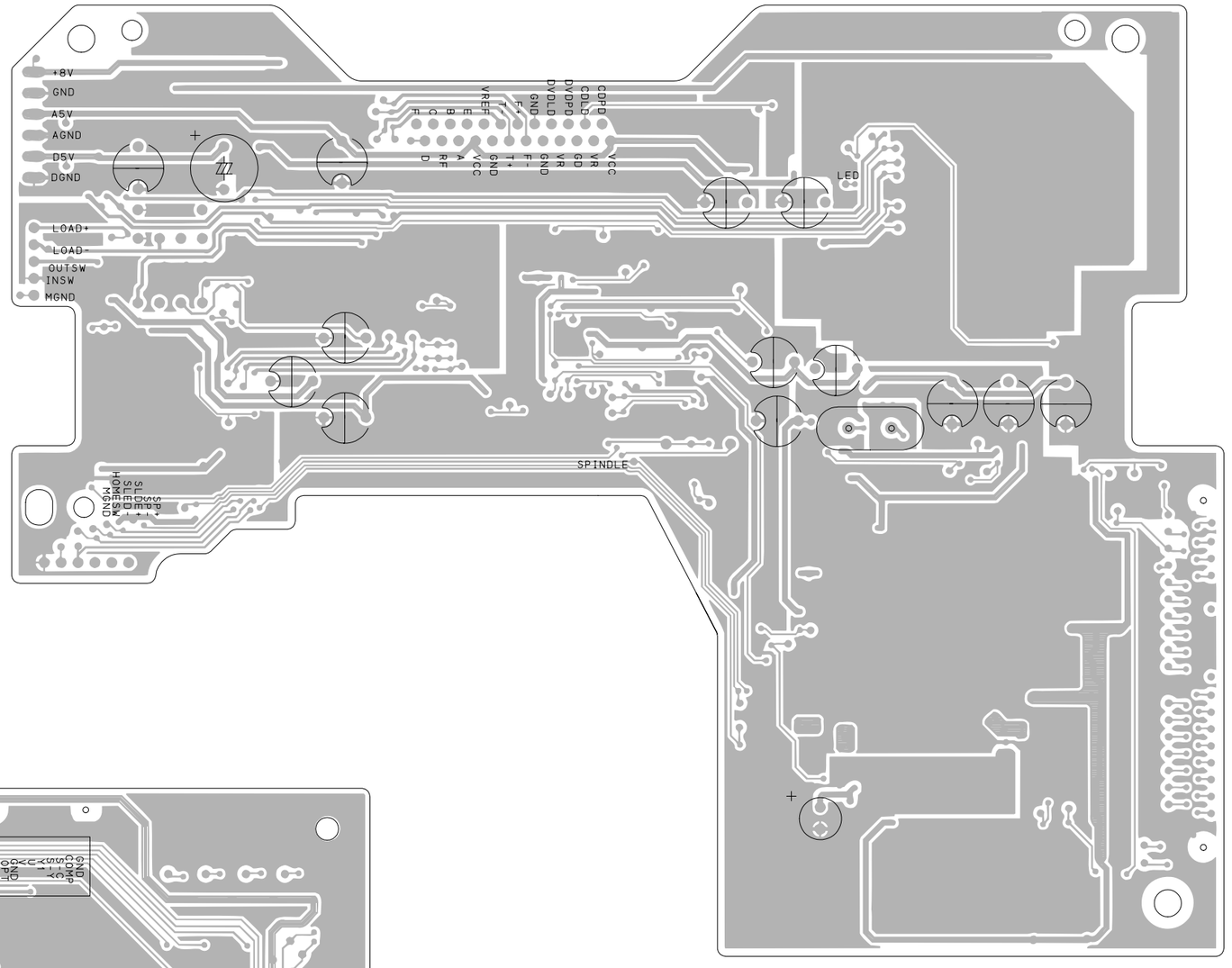
■ **DVD MPEG board** (Forward side)



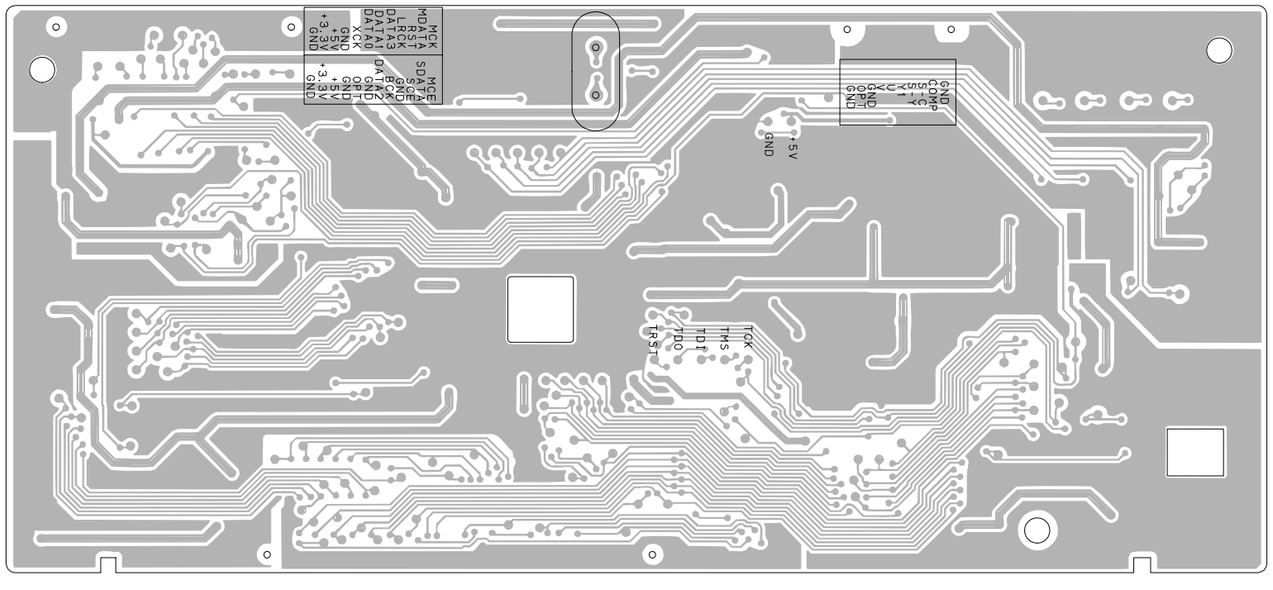
■ **DVD power board** (Reverse side)



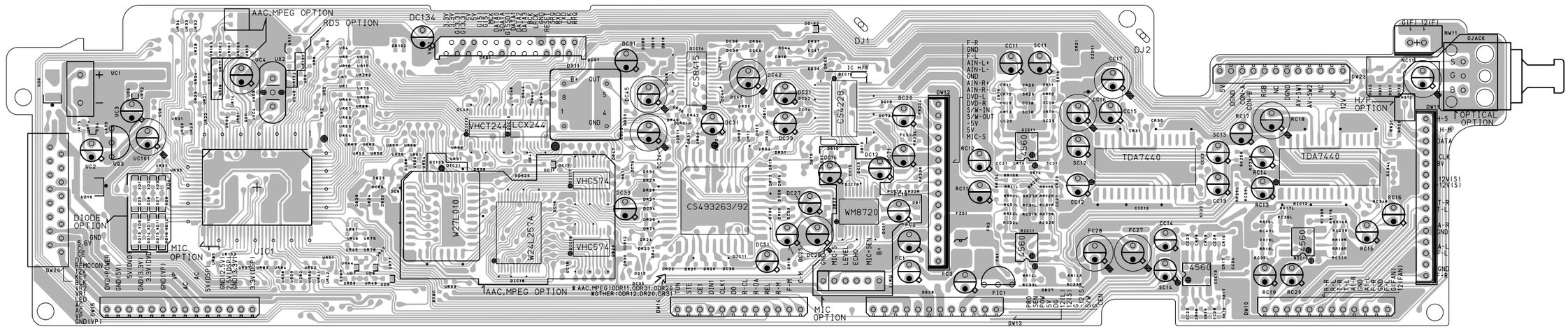
■ **DVD loader board** (Reverse side)



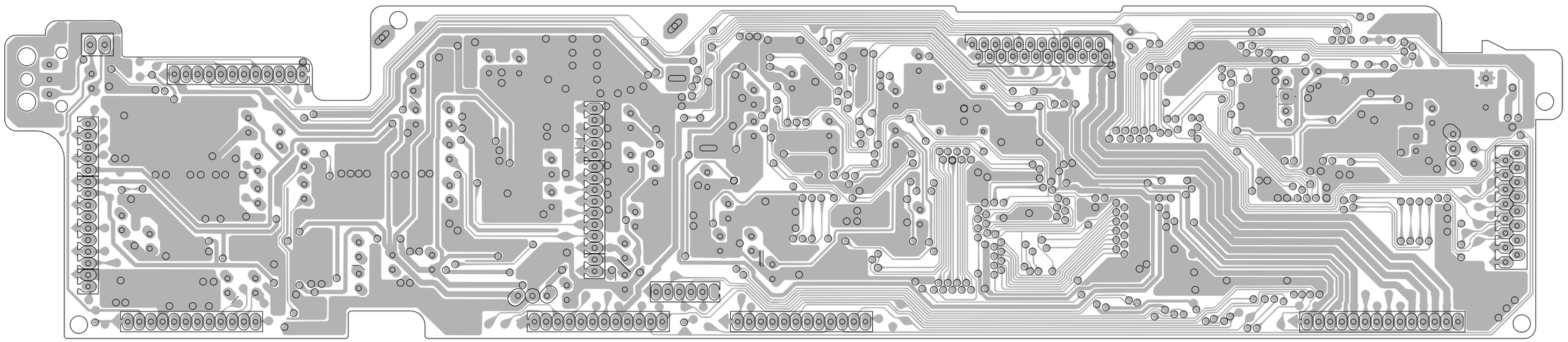
■ **DVD MPEG board** (Reverse side)



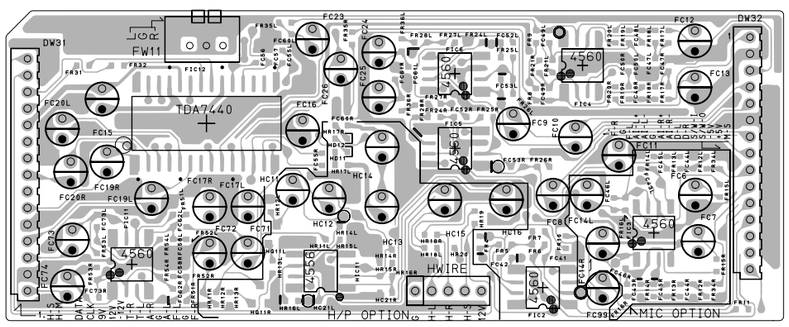
■ **DSP1 board** (Forward side)



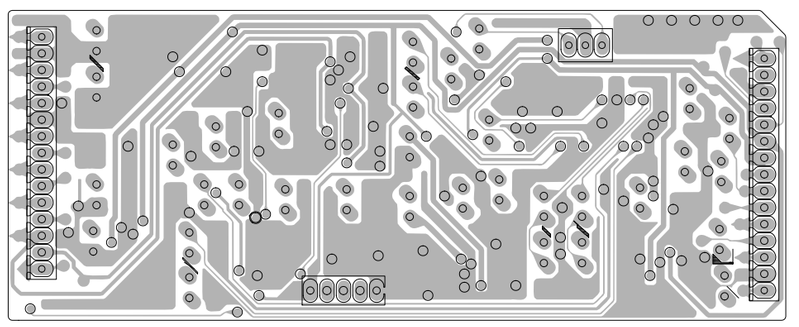
■ **DSP1 board** (Reverse side)



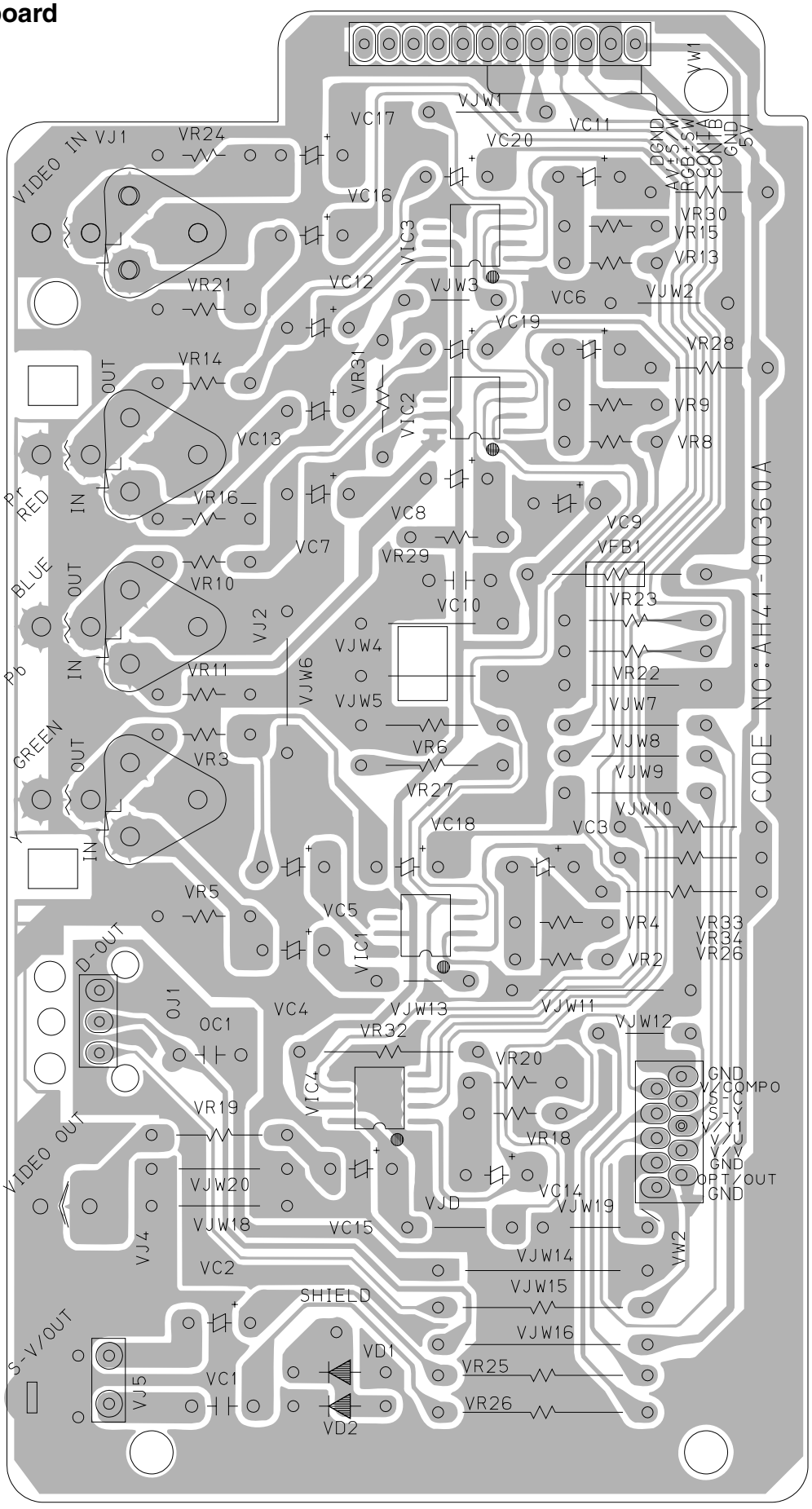
■ **DSP2 board** (Forward side)



■ **DSP2 board** (Reverse side)



■ Jack board


VIDEO IN VJ1
VIDEO OUT
S-V/OUT
D-OUT
Pr RED
Pb BLUE
Y GREEN
IN 1
OUT
VJ1
VJ2
VJ3
VJ4
VJ5
OJ1
OC1
VW1
VW2
VJW1
VJW2
VJW3
VJW4
VJW5
VJW6
VJW7
VJW8
VJW9
VJW10
VJW11
VJW12
VJW13
VJW14
VJW15
VJW16
VJW18
VJW19
VJW20
VJD
SHIELD
VD1
VD2
VFB1
VIC1
VIC2
VIC3
VIC4
VR2
VR3
VR4
VR5
VR6
VR8
VR9
VR10
VR11
VR13
VR14
VR15
VR16
VR18
VR19
VR20
VR21
VR22
VR23
VR24
VR25
VR26
VR27
VR28
VR29
VR30
VR31
VR32
VR33
VR34
VC1
VC2
VC3
VC4
VC5
VC6
VC7
VC8
VC9
VC10
VC11
VC12
VC13
VC14
VC15
VC16
VC17
VC18
VC19
VC20
GND
V/COMPO
S-C
S-Y
V-Y1
V-U
V-V
PRT/OUT
DGND
AVSW+B
RGB SW+B
GND
5V
CODE NO:AH41-00360A

PARTS LIST

[TH-A5]

* All printed circuit boards and its assemblies are not available as service parts.

Area suffix

J ---------- U.S.A.
C ---------- Canada

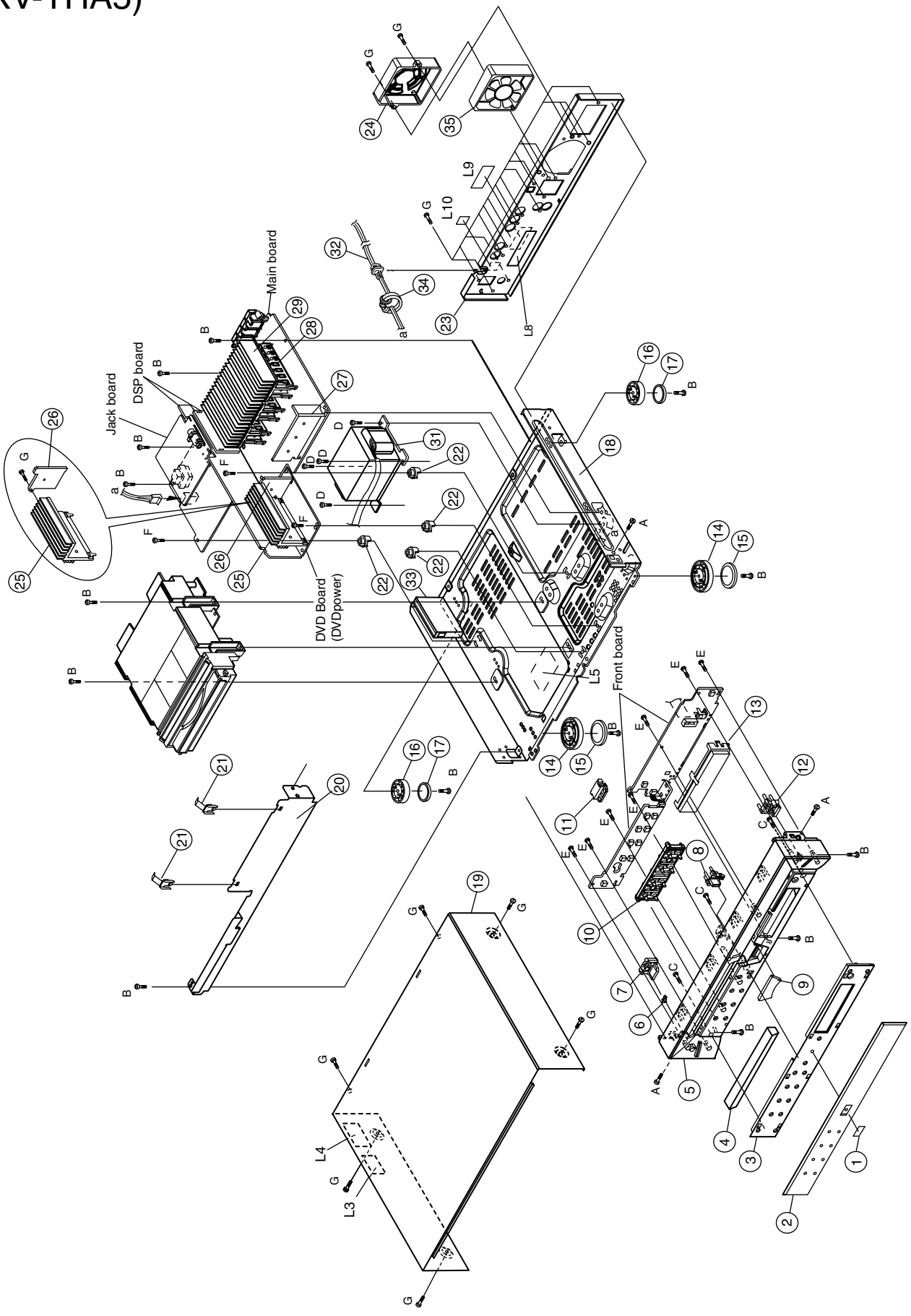
- Contents -

Exploded view of general assembly and parts list (Block No.M1)XV-THA5 ------- 3- 2
Exploded view of general assembly and parts list (Block No.M2)SP-WA5 -------- 3- 4
DVD mechanism assembly and parts list (Block No.MJ) ---------- 3- 6
Electrical parts list (Block No.01~06) ---------- 3- 8
Packing materials and accessories parts list (Block No.M3,M5) ---------- 3-26

Exploded view of general assembly and parts list

(XV-THA5)

Block No. M 1 M M



■ Parts list (General assembly)

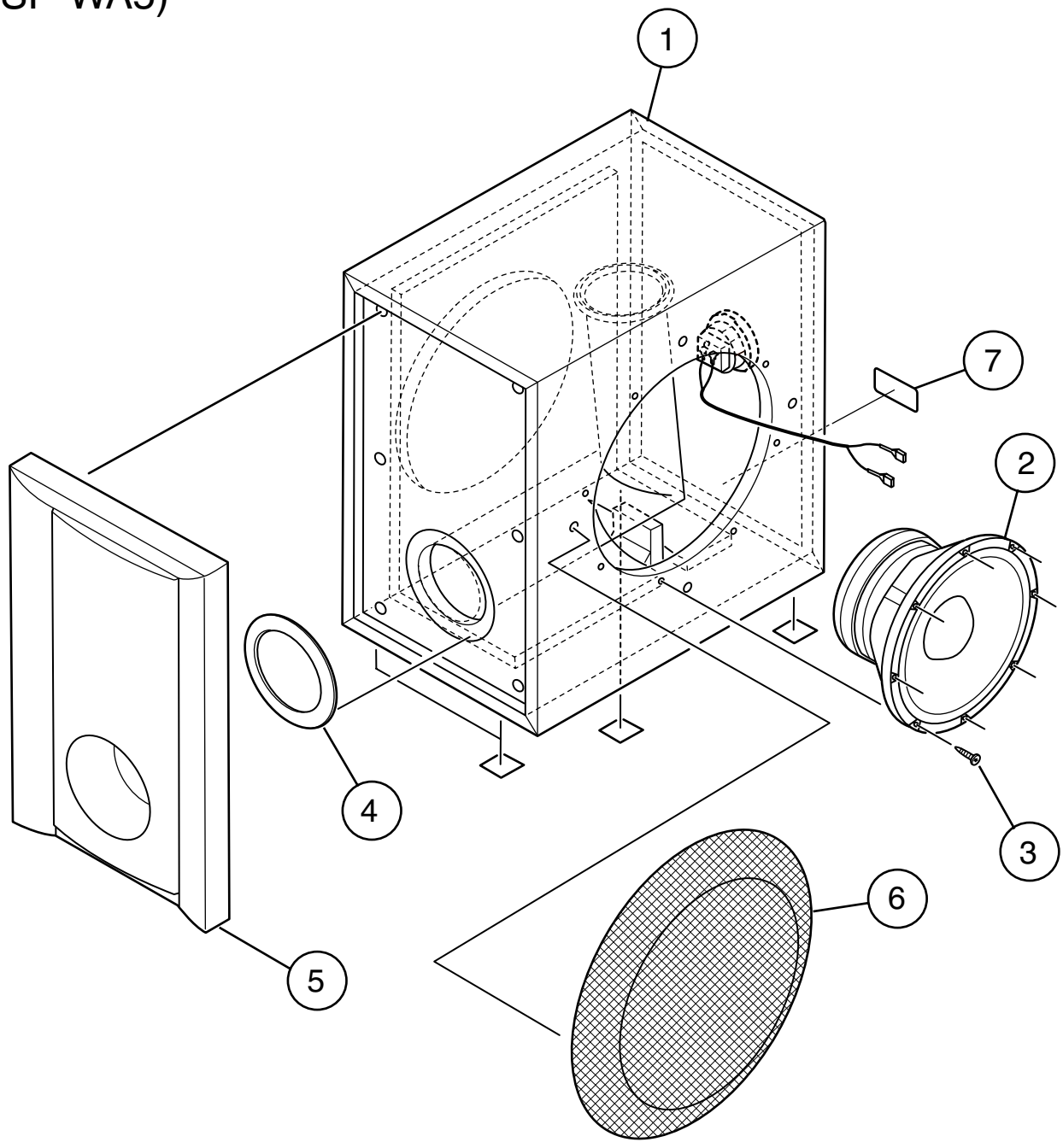
Block No. M1MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	A	6002-000126	SCREW-TAPPING	2	FH 3*10 BLK	
	B	6003-000398	SCREW-TAP TITE	16	BH 2S 3*6 YEL	
	C	6003-000276	SCREW-TAP TITE	27	BH M3*10 YEL	
	D	AH60-10107A	SCREW-TAP TITE	4	M4*6 YEL	
	E	AH60-10020D	SCREW-TAP TITE	9	RH 2.6*8 YEL	
	F	6003-000278	SCREW-TAP TITE	3	BH 3*14 YEL	
	G	AH60-00025A	SCREW-TAP TITE	24	BH 3*10 SILVER	
	1	AH64-01539A	DVD BADGE	1		
	2	AH64-01540B	WINDOW	1	FRONT	
	3	AH61-00834A	FRONT CAP	1		
	4	AH64-01453A	TRAY DOOR	1		
	5	AH64-01452A	FRONT CABINET	1		
	6	AH67-00129A	LENS	1	POWER	
	7	AH64-01454A	KNOB	1	POWER	
	8	AH64-01455A	KNOB	1	OPEN	
	9	AH67-00128A	LENS	1	FRONT	
	10	AH64-01457A	KNOB	1	FUNCTION	
	11	AH61-00836A	HOLDER	1	LED	
	12	AH64-01456A	KNOB	1	PLAY	
	13	AH61-00835A	HOLDER-VFD	1		
	14	AH61-00766A	HOLDER-FOOT,F	2		
	15	AH69-00503A	CUSHION-FOOT,F	2		
	16	AH61-00777A	HOLDER-FOOT,B	2		
	17	AH69-00503B	CUSHION-FOOT,B	2		
	18	AH64-01357A	CABINET	1	BOTTOM	
	19	AH64-01358C	CABINET	1	TOP	
	20	AH63-00383A	SHIELD	1	FRONT	
	21	AH63-00388B	SHIELD	2	TOP	
	22	AH61-00774A	HOLDER	4	PCB	
	23	AH64-01359C	CABINET	1	REAR	
	24	AH63-00303A	COVER	1	FAN	
	25	AH62-00051C	HEAT SINK D	1		
	26	AH62-00051D	HEAT SINK B	1		
	27	AH62-00052A	HEAT SINK	1	DIO	
	28	AH61-00779A	IC HOLDER	6		
	29	AH62-00050A	HEAT SINK M	3		
⚠	31	AH26-00146A	POWER TRANS	1		
⚠	32	AH39-00258U	POWER CORD	1		
	33	AH40-00016A	TUNER-PACK ASSY	1		
	34	3301-001525	FERRITE CORE	1		
	35	AH31-00029A	MOTOR FAN	1		
	L 3	AH68-00331D	LABEL-HHC	1		J
	L 4	AH68-00331C	LABEL-FCC	1		
	L 5	AH68-00967A	LABEL-DTS	1		
	L 8	AH68-50252B	LABEL-FUSE	1		
	L 9	AH68-00989A	LABEL-RATING	1		J
		AH68-00989B	LABEL-RATING	1		C
	L 10	AH68-00093E	LABEL-NO,1	1		

Exploded view of general assembly and parts list

(SP-WA5)

Block No. M 2 M M



■ Parts list (GEneral assembly) SP-WA5

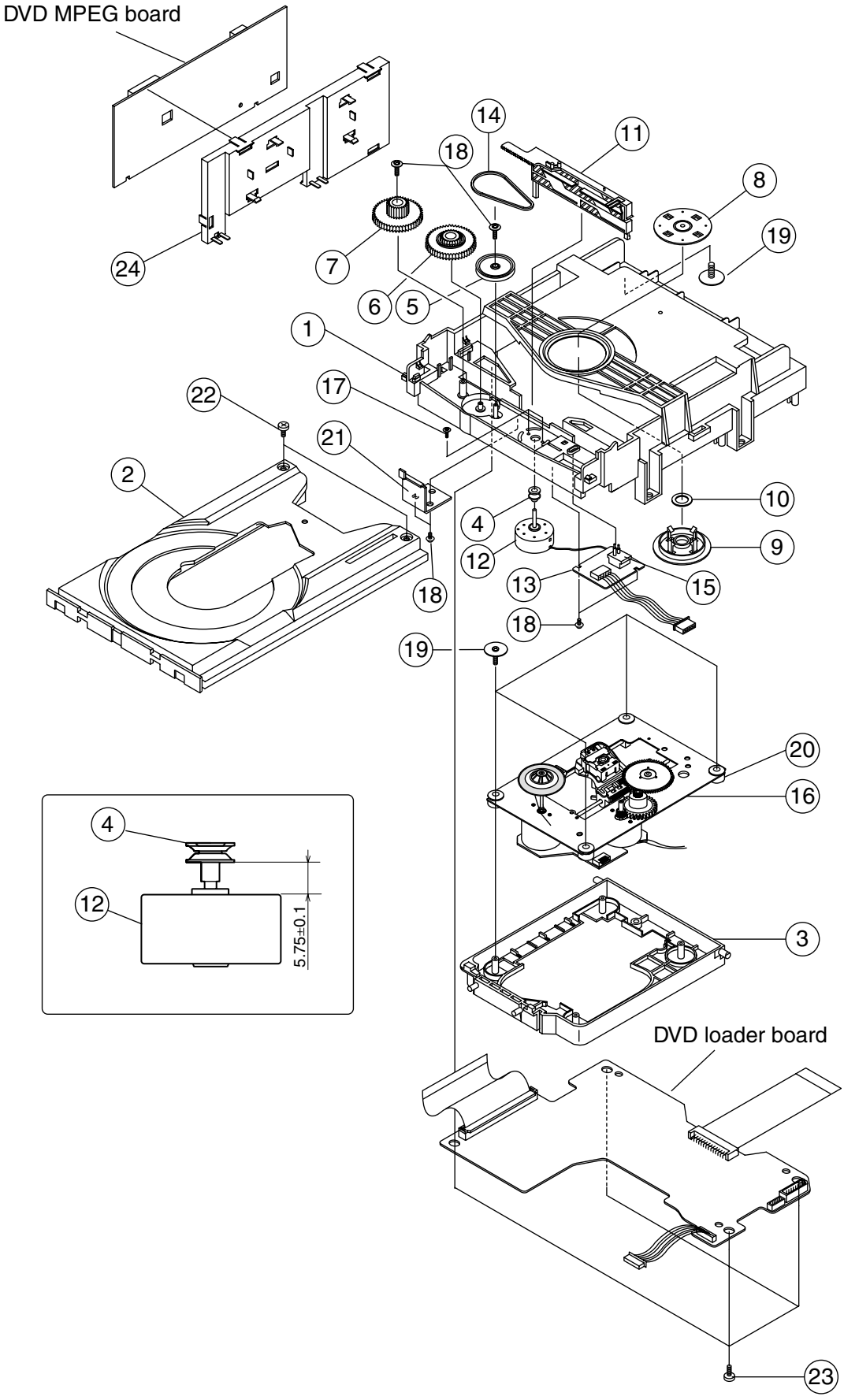
Block No. M2MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	1	AA000026-01	CABINET	1		
	2	CR200027-01	SPEAKER	1	LE10020-007A	
	3	70-059-416-02	SCREW	8		
	4	29-100-086-01	PACKING RING	1		
	5	53-000-158-11	ORNAMENT	1		
	6	99-200-019-01	NET ASSY	1		
	7	60-001-856-01	RATING LABEL	1		

< MEMO >

DVD mechanism assembly and parts list

Block No. M J M M



■ Parts list (DVD mechanism)

Block No. MJMM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	1	AH61-00746A	BASE-MAIN	1	BLK	
	2	AH63-00294A	TRAY-DISC	1	D/GRAY	
	3	AH66-00159A	LEVER-LIFT	1	BLK	
	4	AH66-00160A	PULLEY-MOTOR	1		
	5	AH66-00161A	GEAR-PULLEY	1		
	6	AH66-00162A	GEAR-MIDDLE	1		
	7	AH66-00163A	GEAR-TRAY	1		
	8	AH66-00164A	CLAMPER-UPPER	1	UPPER	
	9	AH66-00165A	CLAMPER-LOWER	1	LOWER	
	10	AH61-00747A	BRACKET-CHUCK	1	T1.0	
	11	AH66-00166A	SLIDE-CAM	1		
	12	AH31-00030A	MOTOR-DC	1	RF-300CA-11440	
	13	----------	PCB-SWITCH	1	26.5 X 21.6	
	14	AH66-00167A	BELT-PULLEY	1	CR 1.5	
	15	3409-001119	SWITCH-DETECTOR	1	JDS2200	
	16	AH59-00130A	DVD DECK	1	CMS-S21MG6	
	17	6001-001257	SCREW-MACHINE	2	1.7 X 3(W4.5)	
	18	AJ60-10001A	SCREW-TAP	6	2 X 5(W7)	
	19	6003-001210	SCREW-TAP	5	2.6 X 6(W12)	
	20	AH73-00025B	RUBBER-CD	4	BUTYL 15	
	21	AH61-00958A	BRACKET-GUIDE	1	SECC 1.0T	
	22	6003-000283	SCREW-TAP	2	3 X 8	
	23	6003-000276	SCREW-TAP	4	3 X 10	
	24	AH61-00828A	HOLDER-PCB	1	ABS BLK	

■ **Electrical parts list (Main board))** **Block No. 01**

⚠	Item	Parts number	Parts name	Remarks	Area
	AR48	2007-000097	CHIP RESISTOR		
⚠	BD1	0402-001077	BRIDGE DIODE		
⚠	BD2	0402-001258	BRIDGE DIODE		
⚠	BD3	0402-001258	BRIDGE DIODE		
⚠	BD4	0402-001258	BRIDGE DIODE		
	CW1	3711-000190	CONNECTOR		
	CW2	3711-004848	CONNECTOR		
	CW3	3711-001098	CONNECTOR		
	CW4	3708-001311	CONNECTOR		
	CW5	3711-004110	CONNECTOR		
	CW6	3711-004110	CONNECTOR		
	CW7	3711-004110	CONNECTOR		
	CW8	3708-001094	CONNECTOR		
⚠	C1	2201-000546	C.CAPACITOR		
	C10	2401-001912	E.CAPACITOR		
	C11	2401-000795	E.CAPACITOR		
	C12	2401-001954	E.CAPASITOR		
	C13	2401-001912	E.CAPACITOR		
	C14	2201-000161	C.CAPACITOR		
	C15	2201-000161	C.CAPACITOR		
	C16	2201-000161	C.CAPACITOR		
	C17	2201-000161	C.CAPACITOR		
⚠	C18	2401-002258	E.CAPACITOR		
⚠	C19	2401-002258	E.CAPACITOR		
⚠	C2	2201-000546	C.CAPACITOR		
⚠	C20	2401-003116	E.CAPACITOR		
	C202L	2203-000783	CHIP CAPACITOR		
	C202R	2203-000783	CHIP CAPACITOR		
⚠	C21	2401-003116	E.CAPACITOR		
⚠	C22	2401-001959	E.CAPACITOR		
⚠	C23	2401-001959	E.CAPACITOR		
	C25	2401-001895	E CAPACITOR		
	C26	2401-001895	E CAPACITOR		
	C27	2401-001895	E CAPACITOR		
	C28	2401-000459	E.CAPACITOR		
	C29	2401-000459	E.CAPACITOR		
	C3	2201-000546	C.CAPACITOR		
	C30	2401-001969	E.CAPACITOR		
	C31	2401-001969	E.CAPACITOR		
	C32C	2201-000300	C.CAPACITOR		
	C32FL	2202-000796	C.CAPACITOR		
	C32FR	2202-000796	C.CAPACITOR		
	C32RL	2202-000796	C.CAPACITOR		
	C32RR	2202-000796	C.CAPACITOR		
	C32W	2201-000300	C.CAPACITOR		
	C33C	2203-000440	CHIP CAPACITOR		
	C33FL	2202-000796	C.CAPACITOR		
	C33FR	2203-000440	CHIP CAPACITOR		
	C33RL	2201-000300	C.CAPACITOR		
	C33RR	2201-000300	C.CAPACITOR		
	C33W	2203-000440	CHIP CAPACITOR		
	C34	2401-000385	E.CAPACITOR		
	C35	2401-001361	E.CAPACITOR		
	C37	2401-001975	E CAPACITOR		
	C39	2401-001538	E.CAPACITOR		
	C40C	2401-000407	E.CAPACITOR		
	C40FL	2401-000407	E.CAPACITOR		
	C40FR	2401-000407	E.CAPACITOR		
	C40RL	2401-000407	E.CAPACITOR		
	C40RR	2401-000407	E.CAPACITOR		
	C40W	2401-000407	E.CAPACITOR		
	C41C	2203-001554	CHIP CAPACITOR		
	C41W	2203-000062	CHIP CAPACITOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	C43C	2401-000909	E.CAPACITOR		
	C43FL	2401-000909	E.CAPACITOR		
	C43FR	2401-000909	E.CAPACITOR		
	C43RL	2401-000909	E.CAPACITOR		
	C43RR	2401-000909	E.CAPACITOR		
	C43W	2401-001502	E CAPACITOR		
	C44C	2203-000704	CHIP CAPACITOR		
	C44FL	2203-000704	CHIP CAPACITOR		
	C44FR	2203-000704	CHIP CAPACITOR		
	C44RL	2203-000704	CHIP CAPACITOR		
	C44RR	2203-000704	CHIP CAPACITOR		
	C44W	2203-000280	CHIP CAPACITOR		
	C47C	2301-000375	C-FILM,PEF		
	C47FL	2301-000375	C-FILM,PEF		
	C47FR	2301-000375	C-FILM,PEF		
	C47RL	2301-000375	C-FILM,PEF		
	C47RR	2301-000375	C-FILM,PEF		
	C47W	2301-000375	C-FILM,PEF		
	C5	2201-000546	C.CAPACITOR		
	C52	2401-001975	E CAPACITOR		
	C54	2401-001975	E CAPACITOR		
	C55	2401-001975	E CAPACITOR		
	C7	2401-001538	E.CAPACITOR		
	C8	2401-000438	E.CAPACITOR		
	C9	2401-001413	E.CAPACITOR		
	D1	0402-000127	DIODE		
	D10	0401-001090	DIODE		
⚠	D11	0402-000127	DIODE		
	D12	0401-001090	DIODE		
	D13	0401-001090	DIODE		
	D14	0401-001090	DIODE		
	D15	0401-001090	DIODE		
	D16	0401-001090	DIODE		
	D17	0401-001090	DIODE		
	D2	0402-000127	DIODE		
	D20	0401-001090	DIODE		
	D201	0401-001090	DIODE		
	D202	0401-001090	DIODE		
	D203	0401-001090	DIODE		
	D204	0401-001090	DIODE		
	D205	0401-001090	DIODE		
	D206	0401-001090	DIODE		
	D207	0401-001090	DIODE		
	D208	0403-001376	ZENER DIODE		
	D209	0401-001090	DIODE		
	D21	0401-001090	DIODE		
	D210	0401-001090	DIODE		
	D211	0401-001090	DIODE		
	D212	0401-001090	DIODE		
	D213	0401-001090	DIODE		
	D214	0401-001090	DIODE		
	D215	0401-001090	DIODE		
	D216	0401-001090	DIODE		
	D217	0401-001090	DIODE		
	D218	0401-001090	DIODE		
	D22	0402-000309	DIODE		
	D23	0402-000309	DIODE		
	D24	0402-000309	DIODE		
	D28	0401-001090	DIODE		
	D29	0401-001090	DIODE		
	D3	0401-000101	DIODE		
	D30	0401-001090	DIODE		
	D31	0401-001090	DIODE		

■ **Electrical parts list (Main board))** **Block No. 01**

⚠	Item	Parts number	Parts name	Remarks	Area
	D32	0401-001090	DIODE		
	D33	0401-001090	DIODE		
	D34	0401-001090	DIODE		
	D35C	0401-001090	DIODE		
	D35FL	0401-001090	DIODE		
	D35FR	0401-001090	DIODE		
	D35RL	0401-001090	DIODE		
	D35RR	0401-001090	DIODE		
	D35W	0401-001090	DIODE		
	D36C	0401-001090	DIODE		
	D36FL	0401-001090	DIODE		
	D36FR	0401-001090	DIODE		
	D36RL	0401-001090	DIODE		
	D36RR	0401-001090	DIODE		
	D36W	0401-001090	DIODE		
	D37C	0401-001090	DIODE		
	D37FL	0401-001090	DIODE		
	D37FR	0401-001090	DIODE		
	D37RL	0401-001090	DIODE		
	D37RR	0401-001090	DIODE		
	D37W	0401-001090	DIODE		
	D38C	0401-001090	DIODE		
	D38FL	0401-001090	DIODE		
	D38FR	0401-001090	DIODE		
	D38RL	0401-001090	DIODE		
	D38RR	0401-001090	DIODE		
	D38W	0401-001090	DIODE		
	D39C	0402-000309	DIODE		
	D39FL	0402-000309	DIODE		
	D39FR	0402-000309	DIODE		
	D39RL	0402-000309	DIODE		
	D39RR	0402-000309	DIODE		
	D39W	0402-001484	DIODE		
	D4	0402-000127	DIODE		
	D40C	0402-000309	DIODE		
	D40FL	0402-000309	DIODE		
	D40FR	0402-000309	DIODE		
	D40RL	0402-000309	DIODE		
	D40RR	0402-000309	DIODE		
	D40W	0402-000309	DIODE		
	D41C	0402-000309	DIODE		
	D41FL	0402-000309	DIODE		
	D41FR	0402-000309	DIODE		
	D41RL	0402-000309	DIODE		
	D41RR	0402-000309	DIODE		
	D41W	0402-000309	DIODE		
	D42C	0402-000309	DIODE		
	D42FL	0402-000309	DIODE		
	D42FR	0402-000309	DIODE		
	D42RL	0402-000309	DIODE		
	D42RR	0402-000309	DIODE		
	D42W	0402-001484	DIODE		
	D5	2003-000603	OMF RESISTOR		
	D51	0401-001090	DIODE		
	D52	0401-001090	DIODE		
	D53	0401-001090	DIODE		
	D54	0401-001090	DIODE		
	D55	0401-001090	DIODE		
	D6	0402-000127	DIODE		
	D65	0401-001090	DIODE		
	D7	2003-000603	OMF RESISTOR		
	D8	0402-000127	DIODE		
	D9	0401-001090	DIODE		

⚠	Item	Parts number	Parts name	Remarks	Area
⚠	FU1	3601-001245	FUSE		
⚠	FU3	3601-000184	FUSE		
	HFU1	3602-000147	FUSE-CLIP	250V	
	HFU3	3602-000147	FUSE-CLIP	250V	
	HR2	2007-000129	CHIP RESISTOR		
	IC1	1203-000276	IC		
	IC2	1201-000163	IC		
	IC3	1203-000242	IC		
	IC4	1203-000110	IC		
	IC5	1201-000163	IC		
	IC6	1201-000163	IC		
	IC7	1201-000163	IC		
	IC8	1203-000242	IC		
	JW100	2007-000033	CHIP RESISTOR		
	JW102	2007-000033	CHIP RESISTOR		
	JW104	2007-000033	CHIP RESISTOR		
	JW106	2007-000033	CHIP RESISTOR		
	J1	3716-001173	TERMINAL BLOCK		
	J2	3716-001132	TERMINAL BLOCK		
	J3	3722-001727	AUX JACK		
⚠	L1	AH27-10001F	CHOKE COIL		
⚠	L2	AH27-10001F	CHOKE COIL		
	L3C	AH27-90001A	SPRING COIL		
	L3FL	AH27-90001A	SPRING COIL		
	L3FR	AH27-90001A	SPRING COIL		
	L3RL	AH27-90001A	SPRING COIL		
	L3RR	AH27-90001A	SPRING COIL		
	L3W	AH27-90001A	SPRING COIL		
	MR18	2007-000106	CHIP RESISTOR		
	MR19	2007-000090	CHIP RESISTOR		
⚠	PBD1	0402-001258	BRIDGE DIODE		
⚠	PBD2	0402-001408	BRIDGE DIODE		
	PC1	2401-000230	E.CAPACITOR		
	PC10	2401-000475	E.CAPACITOR		
	PC11	2401-001895	E CAPACITOR		
	PC12	2401-001895	E CAPACITOR		
	PC13	2401-000475	E.CAPACITOR		
	PC14	2401-001895	E CAPACITOR		
	PC15	2401-001895	E CAPACITOR		
	PC16	2401-001102	E.CAPASITOR		
	PC17	2401-001895	E CAPACITOR		
	PC18	2401-001102	E.CAPASITOR		
	PC19	2201-000546	C.CAPACITOR		
	PC2	2401-000357	E.CAPACITOR		
	PC20	2201-000546	C.CAPACITOR		
⚠	PC3	2401-001879	E.CAPACITOR		
⚠	PC4	2401-001879	E.CAPACITOR		
	PC5	2401-001052	E.CAPACITOR		
	PC6	2401-000475	E.CAPACITOR		
	PC7	2401-001895	E CAPACITOR		
	PC8	2401-000475	E.CAPACITOR		
	PC9	2401-001895	E CAPACITOR		
	PD1	0402-000127	DIODE		
	PD10	0404-000156	SCHOTTKY DIODE		
	PD2	0401-000101	DIODE		
	PD3	0401-000101	DIODE		
	PD4	0401-000101	DIODE		
	PD5	0401-000101	DIODE		
	PD7	0401-000101	DIODE		
	PD8	0401-000101	DIODE		
	PD9	0401-000101	DIODE		
	PQ1	1203-001589	IC		
	PQ2	1203-001006	IC		

■ **Electrical parts list (Main board))** **Block No. 01**

⚠	Item	Parts number	Parts name	Remarks	Area
	PQ3	0502-000303	TRANSISTOR		
	PQ4	1203-001586	IC		
	PQ5	1203-001697	IC	78R08 T0-220 4P	
	PQ6	1203-001006	IC		
	PQ7	1203-002296	IC	BA3254FP-E2	
	PR1	2003-000701	OMF RESISTOR		
	PR2	2007-000091	CHIP RESISTOR		
	PR21	2007-000091	CHIP RESISTOR		
	PR3	2007-000309	CHIP RESISTOR		
	PR4	2003-000471	OMF RESISTOR		
	PR5	2007-000309	CHIP RESISTOR		
	PR6	2007-000094	CHIP RESISTOR		
	PR7	2007-000129	CHIP RESISTOR		
	PR8	2007-000092	CHIP RESISTOR		
	PR9	2007-000094	CHIP RESISTOR		
⚠	PT1	AH26-00143A	POWER TRANS.		
	PW1	3711-000963	CONNECTOR		
	PW2	3711-003111	CONNECTOR		
	PW3	3711-004109	CONNECTOR		
	PW4	AH39-00291A	LEAD CONNECTOR		
	PW5	3708-001311	CONNECTOR		
	PZD1	0403-000564	ZENER DIODE		
	PZD2	0403-000564	ZENER DIODE		
	Q1	0504-000118	DEGI TRANSISTOR		
	Q10	0501-000398	TRANSISTOR		
	Q11	0501-000398	TRANSISTOR		
	Q12	0504-001003	DEGI TRANSISTOR		
	Q13	0501-000303	TRANSISTOR		
	Q14	0501-000398	TRANSISTOR		
	Q15	0501-000398	TRANSISTOR		
	Q16	0501-000303	TRANSISTOR		
	Q17C	0501-000341	TRANSISTOR		
	Q17FL	0501-000341	TRANSISTOR		
	Q17FR	0501-000341	TRANSISTOR		
	Q17RL	0501-000341	TRANSISTOR		
	Q17RR	0501-000341	TRANSISTOR		
	Q17W	0501-000341	TRANSISTOR		
	Q18C	0501-000341	TRANSISTOR		
	Q18FL	0501-000341	TRANSISTOR		
	Q18FR	0501-000341	TRANSISTOR		
	Q18RL	0501-000341	TRANSISTOR		
	Q18RR	0501-000341	TRANSISTOR		
	Q18W	0501-000341	TRANSISTOR		
	Q19C	0501-000398	TRANSISTOR		
	Q19FL	0501-000398	TRANSISTOR		
	Q19FR	0501-000398	TRANSISTOR		
	Q19RL	0501-000398	TRANSISTOR		
	Q19RR	0501-000398	TRANSISTOR		
	Q19W	0501-000398	TRANSISTOR		
	Q2	0501-000010	TRANSISTOR		
	Q20C	0501-000303	TRANSISTOR		
	Q20FL	0501-000303	TRANSISTOR		
	Q20FR	0501-000303	TRANSISTOR		
	Q20RL	0501-000303	TRANSISTOR		
	Q20RR	0501-000303	TRANSISTOR		
	Q20W	0501-000303	TRANSISTOR		
	Q21C	0501-000294	TRANSISTOR		
	Q21FL	0501-000294	TRANSISTOR		
	Q21FR	0501-000294	TRANSISTOR		
	Q21RL	0501-000294	TRANSISTOR		
	Q21RR	0501-000294	TRANSISTOR		
	Q21W	0501-000294	TRANSISTOR		
	Q22C	0501-000010	TRANSISTOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	Q22FL	0501-000010	TRANSISTOR		
	Q22FR	0501-000010	TRANSISTOR		
	Q22RL	0501-000010	TRANSISTOR		
	Q22RR	0501-000010	TRANSISTOR		
	Q22W	0501-000010	TRANSISTOR		
	Q23C	0501-000010	TRANSISTOR		
	Q23FL	0501-000010	TRANSISTOR		
	Q23FR	0501-000010	TRANSISTOR		
	Q23RL	0501-000010	TRANSISTOR		
	Q23RR	0501-000010	TRANSISTOR		
	Q23W	0501-000010	TRANSISTOR		
	Q24C	0501-000010	TRANSISTOR		
	Q24FL	0501-000010	TRANSISTOR		
	Q24FR	0501-000010	TRANSISTOR		
	Q24RL	0501-000010	TRANSISTOR		
	Q24RR	0501-000010	TRANSISTOR		
	Q24W	0501-000010	TRANSISTOR		
	Q25C	0501-000010	TRANSISTOR		
	Q25FL	0501-000010	TRANSISTOR		
	Q25FR	0501-000010	TRANSISTOR		
	Q25RL	0501-000010	TRANSISTOR		
	Q25RR	0501-000010	TRANSISTOR		
	Q25W	0501-000010	TRANSISTOR		
	Q26C	0501-000294	TRANSISTOR		
	Q26FL	0501-000294	TRANSISTOR		
	Q26FR	0501-000294	TRANSISTOR		
	Q26RL	0501-000294	TRANSISTOR		
	Q26RR	0501-000294	TRANSISTOR		
	Q26W	0501-000294	TRANSISTOR		
	Q27C	0501-000294	TRANSISTOR		
	Q27FL	0501-000294	TRANSISTOR		
	Q27FR	0501-000294	TRANSISTOR		
	Q27RL	0501-000294	TRANSISTOR		
	Q27RR	0501-000294	TRANSISTOR		
	Q27W	0501-000294	TRANSISTOR		
	Q28C	0501-000294	TRANSISTOR		
	Q28FL	0501-000294	TRANSISTOR		
	Q28FR	0501-000294	TRANSISTOR		
	Q28RL	0501-000294	TRANSISTOR		
	Q28RR	0501-000294	TRANSISTOR		
	Q28W	0501-000294	TRANSISTOR		
	Q29C	0502-001048	TRANSISTOR		
	Q29FL	0502-001048	TRANSISTOR		
	Q29FR	0502-001048	TRANSISTOR		
	Q29RL	0502-001048	TRANSISTOR		
	Q29RR	0502-001048	TRANSISTOR		
	Q29W	0502-001048	TRANSISTOR		
	Q3	0501-000010	TRANSISTOR		
	Q30C	0502-001048	TRANSISTOR		
	Q30FL	0502-001048	TRANSISTOR		
	Q30FR	0502-001048	TRANSISTOR		
	Q30RL	0502-001048	TRANSISTOR		
	Q30RR	0502-001048	TRANSISTOR		
	Q30W	0502-001048	TRANSISTOR		
	Q31C	0502-001048	TRANSISTOR		
	Q31FL	0502-001048	TRANSISTOR		
	Q31FR	0502-001048	TRANSISTOR		
	Q31RL	0502-001048	TRANSISTOR		
	Q31RR	0502-001048	TRANSISTOR		
	Q31W	0502-001048	TRANSISTOR		
	Q32C	0502-001210	TRANSISTOR		
	Q32FL	0502-001210	TRANSISTOR		
	Q32FR	0502-001210	TRANSISTOR		

■ **Electrical parts list (Main board))** **Block No. 01**

⚠	Item	Parts number	Parts name	Remarks	Area
	Q32RL	0502-001210	TRANSISTOR		
	Q32RR	0502-001210	TRANSISTOR		
	Q32W	0502-001210	TRANSISTOR		
	Q33C	0502-001210	TRANSISTOR		
	Q33FL	0502-001210	TRANSISTOR		
	Q33FR	0502-001210	TRANSISTOR		
	Q33RL	0502-001210	TRANSISTOR		
	Q33RR	0502-001210	TRANSISTOR		
	Q33W	0502-001210	TRANSISTOR		
	Q34C	0502-001210	TRANSISTOR		
	Q34FL	0502-001210	TRANSISTOR		
	Q34FR	0502-001210	TRANSISTOR		
	Q34RL	0502-001210	TRANSISTOR		
	Q34RR	0502-001210	TRANSISTOR		
	Q34W	0502-001210	TRANSISTOR		
	Q35C	0501-000398	TRANSISTOR		
	Q35FL	0501-000398	TRANSISTOR		
	Q35FR	0501-000398	TRANSISTOR		
	Q35RL	0501-000398	TRANSISTOR		
	Q35RR	0501-000398	TRANSISTOR		
	Q35W	0501-000398	TRANSISTOR		
	Q36C	0502-001048	TRANSISTOR		
	Q36FL	0502-001048	TRANSISTOR		
	Q36FR	0502-001048	TRANSISTOR		
	Q36RL	0502-001048	TRANSISTOR		
	Q36RR	0502-001048	TRANSISTOR		
	Q36W	0502-001048	TRANSISTOR		
	Q37	0504-000156	DEGI TRANSISTOR		
	Q38	0504-000156	DEGI TRANSISTOR		
	Q39	0504-000156	DEGI TRANSISTOR		
	Q4	0501-000294	TRANSISTOR		
	Q40	0502-000299	TRANSISTOR		
	Q5	0501-000398	TRANSISTOR		
	Q6	0501-000610	TRANSISTOR		
	Q7	0501-000314	TRANSISTOR		
	Q8	0501-000341	TRANSISTOR		
	Q9	0501-000010	TRANSISTOR		
⚠	RE1	3501-001214	RELAY		
⚠	RE3	3501-001008	RELAY	G2R-1 DC12	
	RE5	3501-001197	RELAY	OSA-SS-212DM3	
	RE6	3501-001197	RELAY	OSA-SS-212DM3	
	RE7	3501-001197	RELAY	OSA-SS-212DM3	
	R1	2001-001095	CARBON RESISTOR		
	R10	2007-000102	CHIP RESISTOR		
	R100	2007-000124	CHIP RESISTOR		
	R101	2007-000090	CHIP RESISTOR		
	R102	2007-000078	CHIP RESISTOR		
	R103	2007-000075	CHIP RESISTOR		
	R104	2007-000075	CHIP RESISTOR		
	R105	2007-000077	CHIP RESISTOR		
	R106	2007-000124	CHIP RESISTOR		
	R107	2007-000090	CHIP RESISTOR		
	R108	2007-000097	CHIP RESISTOR		
	R109	2007-000075	CHIP RESISTOR		
	R11	2001-000864	CARBON RESISTOR		
	R110	2007-000075	CHIP RESISTOR		
	R111	2007-000124	CHIP RESISTOR		
	R112	2007-000090	CHIP RESISTOR		
	R113	2007-000097	CHIP RESISTOR		
	R114	2007-000075	CHIP RESISTOR		
	R115	2007-000075	CHIP RESISTOR		
	R116	2007-000077	CHIP RESISTOR		
	R117	2007-000084	CHIP RESISTOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	R118	2007-000086	CHIP RESISTOR		
	R119	2007-000097	CHIP RESISTOR		
	R12	2007-000094	CHIP RESISTOR		
	R120	2007-000075	CHIP RESISTOR		
	R121	2007-000075	CHIP RESISTOR		
	R122	2007-000124	CHIP RESISTOR		
	R123	2007-000090	CHIP RESISTOR		
	R124	2007-000078	CHIP RESISTOR		
	R125	2007-000075	CHIP RESISTOR		
	R126	2007-000075	CHIP RESISTOR		
	R127	2007-000077	CHIP RESISTOR		
	R128	2007-000124	CHIP RESISTOR		
	R129	2007-000090	CHIP RESISTOR		
	R13	2007-000102	CHIP RESISTOR		
	R130	2007-000078	CHIP RESISTOR		
	R131	2007-000075	CHIP RESISTOR		
	R132	2007-000075	CHIP RESISTOR		
	R134	2007-000075	CHIP RESISTOR		
	R135	2007-000097	CHIP RESISTOR		
	R136	2007-000102	CHIP RESISTOR		
	R137C	2007-000070	CHIP RESISTOR		
	R137R	2007-000070	CHIP RESISTOR		
	R14	2007-000091	CHIP RESISTOR		
	R141	2003-000708	OMF RESISTOR		
	R142	2007-000090	CHIP RESISTOR		
	R143	2007-000090	CHIP RESISTOR		
	R144L	2007-000086	CHIP RESISTOR		
	R144R	2007-000086	CHIP RESISTOR		
	R145L	2007-000091	CHIP RESISTOR		
	R145R	2007-000091	CHIP RESISTOR		
	R146	2001-000850	CARBON RESISTOR		
	R15	2001-000702	CARBON RESISTOR		
	R16	2007-000081	CHIP RESISTOR		
	R17	2007-000098	CHIP RESISTOR		
	R18	2007-000098	CHIP RESISTOR		
	R19	2007-000134	CHIP RESISTOR		
	R2	2001-000890	CARBON RESISTOR		
	R20	2007-000134	CHIP RESISTOR		
	R200L	2007-000090	CHIP RESISTOR		
	R200R	2007-000090	CHIP RESISTOR		
	R201L	2007-000134	CHIP RESISTOR		
	R201R	2007-000134	CHIP RESISTOR		
	R21	2007-000094	CHIP RESISTOR		
	R22	2007-000094	CHIP RESISTOR		
	R25	2003-000767	OMF RESISTOR		
	R3	2007-000124	CHIP RESISTOR		
	R30	2003-000765	OMF RESISTOR		
	R31	2001-000110	CARBON RESISTOR		
	R32C	2007-000124	CHIP RESISTOR		
	R32FL	2007-000124	CHIP RESISTOR		
	R32FR	2007-000124	CHIP RESISTOR		
	R32RL	2007-000124	CHIP RESISTOR		
	R32RR	2007-000124	CHIP RESISTOR		
	R32W	2007-000124	CHIP RESISTOR		
	R33C	2007-000653	CHIP RESISTOR		
	R33FL	2007-000653	CHIP RESISTOR		
	R33FR	2007-000653	CHIP RESISTOR		
	R33RL	2007-000653	CHIP RESISTOR		
	R33RR	2007-000653	CHIP RESISTOR		
	R33W	2007-000653	CHIP RESISTOR		
	R34C	2007-000402	CHIP RESISTOR		
	R34FL	2007-000402	CHIP RESISTOR		
	R34FR	2007-000402	CHIP RESISTOR		

■ **Electrical parts list (Main board))** **Block No. 01**

⚠	Item	Parts number	Parts name	Remarks	Area
	R34RL	2007-000402	CHIP RESISTOR		
	R34RR	2007-000402	CHIP RESISTOR		
	R34W	2007-000402	CHIP RESISTOR		
	R35C	2007-000124	CHIP RESISTOR		
	R35FL	2007-000124	CHIP RESISTOR		
	R35FR	2007-000124	CHIP RESISTOR		
	R35RL	2007-000124	CHIP RESISTOR		
	R35RR	2007-000124	CHIP RESISTOR		
	R35W	2007-000124	CHIP RESISTOR		
	R36C	2007-000653	CHIP RESISTOR		
	R36FL	2007-000653	CHIP RESISTOR		
	R36FR	2007-000653	CHIP RESISTOR		
	R36RL	2007-000653	CHIP RESISTOR		
	R36RR	2007-000653	CHIP RESISTOR		
	R36W	2007-000653	CHIP RESISTOR		
	R37C	2007-000402	CHIP RESISTOR		
	R37FL	2007-000402	CHIP RESISTOR		
	R37FR	2007-000402	CHIP RESISTOR		
	R37RL	2007-000402	CHIP RESISTOR		
	R37RR	2007-000402	CHIP RESISTOR		
	R37W	2007-000402	CHIP RESISTOR		
	R38	2003-000710	OMF RESISTOR		
	R38C	2007-000098	CHIP RESISTOR		
	R38FL	2007-000098	CHIP RESISTOR		
	R38FR	2007-000098	CHIP RESISTOR		
	R38RL	2007-000098	CHIP RESISTOR		
	R38RR	2007-000098	CHIP RESISTOR		
	R38W	2007-000098	CHIP RESISTOR		
	R39	2003-000578	OMF RESISTOR		
	R39FL	2007-000097	CHIP RESISTOR		
	R39FR	2007-000097	CHIP RESISTOR		
	R4	2001-000050	CARBON RESISTOR		
	R40	2007-000094	CHIP RESISTOR		
	R401	2007-000102	CHIP RESISTOR		
	R41	2007-000084	CHIP RESISTOR		
	R41FL	2203-001554	CHIP CAPACITOR		
	R41FR	2203-001554	CHIP CAPACITOR		
	R41RL	2203-001554	CHIP CAPACITOR		
	R41RR	2203-001554	CHIP CAPACITOR		
	R42	2007-000094	CHIP RESISTOR		
	R43	2007-000134	CHIP RESISTOR		
	R44	2003-000674	OMF RESISTOR		
	R45	2003-000807	OMF RESISTOR		
	R47	2007-000084	CHIP RESISTOR		
	R48	2007-000097	CHIP RESISTOR		
	R49	2007-000097	CHIP RESISTOR		
	R5	2001-000660	CARBON RESISTOR		
	R50	2007-000090	CHIP RESISTOR		
	R500	2007-000468	CHIP RESISTOR		
	R51	2007-000090	CHIP RESISTOR		
	R52	2007-000076	CHIP RESISTOR		
	R53	2007-000116	CHIP RESISTOR		
	R54	2007-000090	CHIP RESISTOR		
	R55	2007-000094	CHIP RESISTOR		
	R56	2007-000090	CHIP RESISTOR		
	R57	2007-000094	CHIP RESISTOR		
	R58	2007-000090	CHIP RESISTOR		
	R59	2007-000094	CHIP RESISTOR		
	R6	2001-000786	CARBON RESISTOR		
	R60	2007-000120	CHIP RESISTOR		
	R61	2007-000134	CHIP RESISTOR		
	R62	2007-000094	CHIP RESISTOR		
	R63	2007-000090	CHIP RESISTOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	R64	2007-000091	CHIP RESISTOR		
	R65	2007-000090	CHIP RESISTOR		
	R66	2007-000084	CHIP RESISTOR		
	R67	2007-000094	CHIP RESISTOR		
	R68	2007-000084	CHIP RESISTOR		
	R69	2007-000134	CHIP RESISTOR		
	R7	2001-001050	CARBON RESISTOR		
	R70	2007-000134	CHIP RESISTOR		
	R71	2007-000090	CHIP RESISTOR		
	R72	2007-001179	CHIP RESISTOR		
	R73	2007-000125	CHIP RESISTOR		
	R74	2007-000090	CHIP RESISTOR		
	R75C	2007-000097	CHIP RESISTOR		
	R75FL	2007-000097	CHIP RESISTOR		
	R75FR	2007-000097	CHIP RESISTOR		
	R75RL	2007-000097	CHIP RESISTOR		
	R75RR	2007-000097	CHIP RESISTOR		
	R75W	2007-000097	CHIP RESISTOR		
	R76C	2007-000078	CHIP RESISTOR		
	R76FL	2007-000078	CHIP RESISTOR		
	R76FR	2007-000078	CHIP RESISTOR		
	R76RL	2007-000078	CHIP RESISTOR		
	R76RR	2007-000078	CHIP RESISTOR		
	R76W	2007-000124	CHIP RESISTOR		
	R77C	2007-000078	CHIP RESISTOR		
	R77FL	2007-000078	CHIP RESISTOR		
	R77FR	2007-000078	CHIP RESISTOR		
	R77RL	2007-000078	CHIP RESISTOR		
	R77RR	2007-000078	CHIP RESISTOR		
	R77W	2007-000124	CHIP RESISTOR		
	R78C	2007-001039	CHIP RESISTOR		
	R78FL	2007-001039	CHIP RESISTOR		
	R78FR	2007-001039	CHIP RESISTOR		
	R78RL	2007-001039	CHIP RESISTOR		
	R78RR	2007-001039	CHIP RESISTOR		
	R78W	2007-001039	CHIP RESISTOR		
	R79C	2007-000079	CHIP RESISTOR		
	R79FL	2007-000079	CHIP RESISTOR		
	R79FR	2007-000079	CHIP RESISTOR		
	R79RL	2007-000079	CHIP RESISTOR		
	R79RR	2007-000079	CHIP RESISTOR		
	R79W	2007-000079	CHIP RESISTOR		
	R8	2001-000773	CARBON RESISTOR		
	R80C	2007-000098	CHIP RESISTOR		
	R80FL	2007-000098	CHIP RESISTOR		
	R80FR	2007-000098	CHIP RESISTOR		
	R80RL	2007-000098	CHIP RESISTOR		
	R80RR	2007-000098	CHIP RESISTOR		
	R80W	2007-000098	CHIP RESISTOR		
	R81C	2007-000084	CHIP RESISTOR		
	R81FL	2007-000084	CHIP RESISTOR		
	R81FR	2007-000084	CHIP RESISTOR		
	R81RL	2007-000084	CHIP RESISTOR		
	R81RR	2007-000084	CHIP RESISTOR		
	R81W	2007-000090	CHIP RESISTOR		
	R82C	2007-000082	CHIP RESISTOR		
	R82FL	2007-000082	CHIP RESISTOR		
	R82FR	2007-000082	CHIP RESISTOR		
	R82RL	2007-000082	CHIP RESISTOR		
	R82RR	2007-000082	CHIP RESISTOR		
	R82W	2007-000082	CHIP RESISTOR		
	R83C	2007-000082	CHIP RESISTOR		
	R83FL	2007-000082	CHIP RESISTOR		

■ **Electrical parts list (Main board))** **Block No. 01**

⚠	Item	Parts number	Parts name	Remarks	Area
	R83FR	2007-000082	CHIP RESISTOR		
	R83RL	2007-000082	CHIP RESISTOR		
	R83RR	2007-000082	CHIP RESISTOR		
	R83W	2007-000082	CHIP RESISTOR		
	R84C	2007-000090	CHIP RESISTOR		
	R84FL	2007-000090	CHIP RESISTOR		
	R84FR	2007-000090	CHIP RESISTOR		
	R84RL	2007-000090	CHIP RESISTOR		
	R84RR	2007-000090	CHIP RESISTOR		
	R84W	2007-000129	CHIP RESISTOR		
	R85C	2007-000075	CHIP RESISTOR		
	R85FL	2007-000075	CHIP RESISTOR		
	R85FR	2007-000075	CHIP RESISTOR		
	R85RL	2007-000075	CHIP RESISTOR		
	R85RR	2007-000075	CHIP RESISTOR		
	R85W	2007-000075	CHIP RESISTOR		
	R86C	2007-000077	CHIP RESISTOR		
	R86FL	2007-000077	CHIP RESISTOR		
	R86FR	2007-000077	CHIP RESISTOR		
	R86RL	2007-000077	CHIP RESISTOR		
	R86RR	2007-000077	CHIP RESISTOR		
	R86W	2007-000077	CHIP RESISTOR		
	R87C	2007-000086	CHIP RESISTOR		
	R87FL	2007-000086	CHIP RESISTOR		
	R87FR	2007-000086	CHIP RESISTOR		
	R87RL	2007-000086	CHIP RESISTOR		
	R87RR	2007-000086	CHIP RESISTOR		
	R87W	2007-000086	CHIP RESISTOR		
	R88C	2007-000124	CHIP RESISTOR		
	R88FL	2007-000124	CHIP RESISTOR		
	R88FR	2007-000124	CHIP RESISTOR		
	R88RL	2007-000124	CHIP RESISTOR		
	R88RR	2007-000124	CHIP RESISTOR		
	R88W	2007-000081	CHIP RESISTOR		
	R89C	2007-000077	CHIP RESISTOR		
	R89FL	2007-000077	CHIP RESISTOR		
	R89FR	2007-000077	CHIP RESISTOR		
	R89RL	2007-000077	CHIP RESISTOR		
	R89RR	2007-000077	CHIP RESISTOR		
	R89W	2007-000077	CHIP RESISTOR		
	R9	2001-000591	CARBON RESISTOR		
	R90C	2007-000075	CHIP RESISTOR		
	R90FL	2007-000075	CHIP RESISTOR		
	R90FR	2007-000075	CHIP RESISTOR		
	R90RL	2007-000075	CHIP RESISTOR		
	R90RR	2007-000075	CHIP RESISTOR		
	R90W	2007-000075	CHIP RESISTOR		
	R91C	2007-000076	CHIP RESISTOR		
	R91FL	2007-000076	CHIP RESISTOR		
	R91FR	2007-000076	CHIP RESISTOR		
	R91RL	2007-000076	CHIP RESISTOR		
	R91RR	2007-000076	CHIP RESISTOR		
	R91W	2007-000076	CHIP RESISTOR		
	R92C	2007-000076	CHIP RESISTOR		
	R92FL	2007-000076	CHIP RESISTOR		
	R92FR	2007-000076	CHIP RESISTOR		
	R92RL	2007-000076	CHIP RESISTOR		
	R92RR	2007-000076	CHIP RESISTOR		
	R92W	2007-000076	CHIP RESISTOR		
	R93C	2007-000076	CHIP RESISTOR		
	R93FL	2007-000076	CHIP RESISTOR		
	R93FR	2007-000076	CHIP RESISTOR		
	R93RL	2007-000076	CHIP RESISTOR		
	R93RR	2007-000076	CHIP RESISTOR		
	R93W	2007-000076	CHIP RESISTOR		
	R94C	2007-000076	CHIP RESISTOR		
	R94FL	2007-000076	CHIP RESISTOR		
	R94FR	2007-000076	CHIP RESISTOR		
	R94RL	2007-000076	CHIP RESISTOR		
	R94RR	2007-000076	CHIP RESISTOR		
	R94W	2007-000076	CHIP RESISTOR		
	R95C	2007-000076	CHIP RESISTOR		
	R95FL	2007-000076	CHIP RESISTOR		
	R95FR	2007-000076	CHIP RESISTOR		
	R95RL	2007-000076	CHIP RESISTOR		
	R95RR	2007-000076	CHIP RESISTOR		
	R95W	2007-000076	CHIP RESISTOR		
	R96C	2007-000076	CHIP RESISTOR		
	R96FL	2007-000076	CHIP RESISTOR		
	R96FR	2007-000076	CHIP RESISTOR		
	R96RL	2007-000076	CHIP RESISTOR		
	R96RR	2007-000076	CHIP RESISTOR		
	R96W	2007-000076	CHIP RESISTOR		
	R97C	2007-008317	CHIP RESISTOR		
	R97FL	2007-008317	CHIP RESISTOR		
	R97FR	2007-008317	CHIP RESISTOR		
	R97RL	2007-008317	CHIP RESISTOR		
	R97RR	2007-008317	CHIP RESISTOR		
	R97W	2009-000018	OMF RESISTOR		
	R98C	2007-008317	CHIP RESISTOR		
	R98FL	2007-008317	CHIP RESISTOR		
	R98FR	2007-008317	CHIP RESISTOR		
	R98RL	2007-008317	CHIP RESISTOR		
	R98RR	2007-008317	CHIP RESISTOR		
	R98W	2009-000018	OMF RESISTOR		
	R99C	2007-000310	CHIP RESISTOR		
	R99FL	2007-000310	CHIP RESISTOR		
	R99FR	2007-000310	CHIP RESISTOR		
	R99RL	2007-000310	CHIP RESISTOR		
	R99RR	2007-000310	CHIP RESISTOR		
	R99W	2007-000310	CHIP RESISTOR		
	ZD1	0403-000354	ZENER DIODE		
	ZD11	0403-000382	ZENER DIODE		
	ZD12	0403-000382	ZENER DIODE		
	ZD13	0403-000004	ZENER DIODE		
	ZD2	0403-000352	ZENER DIODE		
	ZD201	0403-001376	ZENER DIODE		
	ZD202	0403-001376	ZENER DIODE		
	ZD203	0403-001376	ZENER DIODE		
	ZD204	0403-001376	ZENER DIODE		
	ZD205	0401-001090	DIODE		
	ZD206	0403-001376	ZENER DIODE		
	ZD207	0403-001376	ZENER DIODE		
	ZD208	0403-001376	ZENER DIODE		
	ZD209	0403-001376	ZENER DIODE		
	ZD210	0403-001376	ZENER DIODE		
	ZD211	0403-001376	ZENER DIODE		
	ZD212	0403-001376	ZENER DIODE		
	ZD3	0403-000004	ZENER DIODE		
	ZD5C	0403-001079	ZENER DIODE		
	ZD5FL	0403-001079	ZENER DIODE		
	ZD5FR	0403-001079	ZENER DIODE		
	ZD5RL	0403-001079	ZENER DIODE		
	ZD5RR	0403-001079	ZENER DIODE		
	ZD5W	0403-001079	ZENER DIODE		
	ZD6C	0403-001079	ZENER DIODE		

■ **Electrical parts list (Main board))** **Block No. 01**

⚠	Item	Parts number	Parts name	Remarks	Area
	ZD6FL	0403-001079	ZENER DIODE		
	ZD6FR	0403-001079	ZENER DIODE		
	ZD6RL	0403-001079	ZENER DIODE		
	ZD6RR	0403-001079	ZENER DIODE		
	ZD6W	0403-001079	ZENER DIODE		

■ **Electrical parts list (DSP board))** **Block No. 02**

⚠	Item	Parts number	Parts name	Remarks	Area
	CC11	2401-000407	E.CAPACITOR		
	CC12	2401-000650	E.CAPACITOR		
	CC13	2401-001238	E.CAPACITOR		
	CC14	2401-001889	E.CAPACITOR		
	CC15	2401-000407	E.CAPACITOR		
	CC16	2401-001502	E.CAPACITOR		
	CC17	2401-001502	E.CAPACITOR		
	CC18	2203-001554	CHIP CAPACITOR		
	CC19	2203-001554	CHIP CAPACITOR		
	CC20	2203-000440	CHIP CAPACITOR		
	CC21	2203-000783	CHIP CAPACITOR		
	CC22	2203-000783	CHIP CAPACITOR		
	CC23	2203-000783	CHIP CAPACITOR		
	CC24	2203-000531	CHIP CAPACITOR		
	CC27	2203-000531	CHIP CAPACITOR		
	CIC11	1201-000163	IC		
	CIC12	1204-001465	IC		
	CIC13	1201-000163	IC		
	CR11	2007-000082	CHIP RESISTOR		
	CR12	2007-000082	CHIP RESISTOR		
	CR13	2007-000082	CHIP RESISTOR		
	CR14	2007-000082	CHIP RESISTOR		
	CR15	2007-000086	CHIP RESISTOR		
	CR16	2007-000078	CHIP RESISTOR		
	CR17	2007-000097	CHIP RESISTOR		
	CR18	2007-000084	CHIP RESISTOR		
	CR19	2007-000120	CHIP RESISTOR		
	CR21	2007-007361	CHIP RESISTOR		
	CR30	2007-000074	CHIP RESISTOR		
	CR31	2007-000074	CHIP RESISTOR		
	CZD11	0403-001409	ZENER DIODE		
	DB13	3301-000353	BEAD	BLM21A121	
	DB14	3301-000353	BEAD	BLM21A121	
	DB16	3301-000353	BEAD	BLM21A121	
	DB18	3301-000353	BEAD	BLM21A121	
	DB19	3301-000353	BEAD	BLM21A121	
	DB20	2007-000077	CHIP RESISTOR		
	DB22	3301-000353	BEAD	BLM21A121	
	DB23	3301-000353	BEAD	BLM21A121	
	DB24	3301-000353	BEAD	BLM21A121	
	DB25	3301-000353	BEAD	BLM21A121	
	DB26	3301-000353	BEAD	BLM21A121	
	DB27	3301-000353	BEAD	BLM21A121	
	DB28	3301-000353	BEAD	BLM21A121	
	DB29	3301-000353	BEAD	BLM21A121	
	DB30	3301-000353	BEAD	BLM21A121	
	DC19	2203-005005	CHIP CAPACITOR		
	DC20	2401-000588	E.CAPACITOR		
	DC21	2401-000588	E.CAPACITOR		
	DC22	2203-005005	CHIP CAPACITOR		
	DC23	2203-005005	CHIP CAPACITOR		
	DC24	2401-000243	E.CAPACITOR		
	DC25	2401-000650	E.CAPACITOR		
	DC26	2203-005005	CHIP CAPACITOR		
	DC27	2401-000588	E.CAPACITOR		
	DC28	2401-001502	E.CAPACITOR		
	DC29	2203-000257	CHIP CAPACITOR		
	DC30	2203-001656	CHIP CAPACITOR		
	DC31	2401-000588	E.CAPACITOR		
	DC32	2203-005005	CHIP CAPACITOR		
	DC33	2401-000588	E.CAPACITOR		
	DC34	2203-005005	CHIP CAPACITOR		
	DC36	2203-005005	CHIP CAPACITOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	DC37	2203-005005	CHIP CAPACITOR		
	DC38	2203-000257	CHIP CAPACITOR		
	DC39	2203-000491	CHIP CAPACITOR		
	DC40	2203-005005	CHIP CAPACITOR		
	DC41	2203-005005	CHIP CAPACITOR		
	DC42	2401-001502	E.CAPACITOR		
	DC43	2203-000257	CHIP CAPACITOR		
	DC44	2203-000257	CHIP CAPACITOR		
	DC45	2401-001502	E.CAPACITOR		
	DC46	2203-005005	CHIP CAPACITOR		
	DC48	2203-005005	CHIP CAPACITOR		
	DC49	2203-005005	CHIP CAPACITOR		
	DC51	2401-000588	E.CAPACITOR		
	DC71	2401-000588	E.CAPACITOR		
	DC72	2203-005005	CHIP CAPACITOR		
	DC73	2401-000588	E.CAPACITOR		
	DC74	2203-005005	CHIP CAPACITOR		
	DC86	2203-005005	CHIP CAPACITOR		
	DC87	2203-005005	CHIP CAPACITOR		
	DC88	2203-005005	CHIP CAPACITOR		
	DC89	2203-000257	CHIP CAPACITOR		
	DC91	2401-000588	E.CAPACITOR		
	DIC11	1204-001840	IC		
	DIC12	0801-002564	IC		
	DIC13	0802-001007	IC		
	DIC14	1001-001170	IC	CS8415A-CZ	
	DIC15	1204-001842	IC		
	DQ13	0501-000314	TRANSISTOR		
	DR12	2007-000113	CHIP RESISTOR		
	DR13	2007-000113	CHIP RESISTOR		
	DR14	2007-000113	CHIP RESISTOR		
	DR15	2007-000113	CHIP RESISTOR		
	DR16	2007-000084	CHIP RESISTOR		
	DR17	2007-000084	CHIP RESISTOR		
	DR18	2007-000090	CHIP RESISTOR		
	DR19	2007-000134	CHIP RESISTOR		
	DR20	2007-000090	CHIP RESISTOR		
	DR21	2007-000084	CHIP RESISTOR		
	DR22	2007-000090	CHIP RESISTOR		
	DR23	2007-000090	CHIP RESISTOR		
	DR24	2007-000090	CHIP RESISTOR		
	DR25	2007-000090	CHIP RESISTOR		
	DR26	2007-000090	CHIP RESISTOR		
	DR27	2007-000090	CHIP RESISTOR		
	DR28	2007-000090	CHIP RESISTOR		
	DR29	2007-000090	CHIP RESISTOR		
	DR30	2007-000090	CHIP RESISTOR		
	DR31	2007-000084	CHIP RESISTOR		
	DR32	2007-000084	CHIP RESISTOR		
	DR33	2007-000113	CHIP RESISTOR		
	DR34	2007-000082	CHIP RESISTOR		
	DR35	2007-000074	CHIP RESISTOR		
	DR36	2007-000090	CHIP RESISTOR		
	DR37	2007-000074	CHIP RESISTOR		
	DR38	2007-000097	CHIP RESISTOR		
	DR39	2007-000124	CHIP RESISTOR		
	DR40	2007-000309	CHIP RESISTOR		
	DR41	2007-000074	CHIP RESISTOR		
	DR42	2007-000113	CHIP RESISTOR		
	DR43	2007-000078	CHIP RESISTOR		
	DR44	2007-000078	CHIP RESISTOR		
	DR45	2007-000078	CHIP RESISTOR		
	DR46	2007-000078	CHIP RESISTOR		

■ **Electrical parts list (DSP board))** **Block No. 02**

⚠	Item	Parts number	Parts name	Remarks	Area
	DR47	2007-000078	CHIP RESISTOR		
	DR501	2007-000090	CHIP RESISTOR		
	DR51	2007-000078	CHIP RESISTOR		
	DR52	2007-000074	CHIP RESISTOR		
	DR61	2007-001167	CHIP RESISTOR		
	DR62	2007-002425	CHIP RESISTOR		
	DR71	2007-000074	CHIP RESISTOR		
	DW10	3710-001422	CONNECTOR		
	DW11	3711-000426	CONNECTOR		
	DW12	3711-000426	CONNECTOR		
	DW13	3710-001422	CONNECTOR		
	DW14	3710-001422	CONNECTOR		
	DW15	3710-001421	CONNECTOR		
	DW20	3708-000178	CONNECTOR		
	DW22	3708-001094	CONNECTOR		
	DW23	3710-001422	CONNECTOR		
	DW31	3710-001734	CONNECTOR		
	DW32	3710-001734	CONNECTOR		
	DX11	2804-001446	OSCILLATOR		
	FC1	2401-000213	E.CAPACITOR		
	FC10	2401-000407	E.CAPACITOR		
	FC11	2401-000407	E.CAPACITOR		
	FC12	2401-000407	E.CAPACITOR		
	FC13	2401-000407	E.CAPACITOR		
	FC15	2401-001502	E CAPACITOR		
	FC16	2401-000407	E.CAPACITOR		
	FC17L	2401-001238	E.CAPACITOR		
	FC17R	2401-001238	E.CAPACITOR		
	FC19L	2401-000650	E.CAPACITOR		
	FC19R	2401-000650	E.CAPACITOR		
	FC2	2401-000213	E.CAPACITOR		
	FC20L	2401-000650	E.CAPACITOR		
	FC20R	2401-000650	E.CAPACITOR		
	FC23	2401-000650	E.CAPACITOR		
	FC24	2401-000650	E.CAPACITOR		
	FC25	2401-000650	E.CAPACITOR		
	FC26	2401-000650	E.CAPACITOR		
	FC27	2401-001502	E.CAPACITOR		
	FC28	2401-001502	E.CAPACITOR		
	FC3	2401-001324	E.CAPACITOR		
	FC41	2203-000888	CHIP CAPACITOR		
	FC42	2203-000604	CHIP CAPACITOR		
	FC43L	2203-000440	CHIP CAPACITOR		
	FC43R	2203-000440	CHIP CAPACITOR		
	FC47L	2203-001554	CHIP CAPACITOR		
	FC47R	2203-001554	CHIP CAPACITOR		
	FC48L	2203-001554	CHIP CAPACITOR		
	FC48R	2203-001554	CHIP CAPACITOR		
	FC49L	2203-000783	CHIP CAPACITOR		
	FC49R	2203-000783	CHIP CAPACITOR		
	FC50L	2203-000440	CHIP CAPACITOR		
	FC50R	2203-000440	CHIP CAPACITOR		
	FC51L	2203-000491	CHIP CAPACITOR		
	FC51R	2203-000491	CHIP CAPACITOR		
	FC52L	2203-000236	CHIP CAPACITOR		
	FC52R	2203-000236	CHIP CAPACITOR		
	FC53L	2203-000236	CHIP CAPACITOR		
	FC53R	2203-000236	CHIP CAPACITOR		
	FC55L	2203-000783	CHIP CAPACITOR		
	FC55R	2203-000783	CHIP CAPACITOR		
	FC56	2203-001034	CHIP CAPACITOR		
	FC57	2203-001034	CHIP CAPACITOR		
	FC58L	2203-000531	CHIP CAPACITOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	FC58R	2203-000531	CHIP CAPACITOR		
	FC6	2401-000407	E.CAPACITOR		
	FC60L	2203-000531	CHIP CAPACITOR		
	FC60R	2203-000531	CHIP CAPACITOR		
	FC7	2401-000407	E.CAPACITOR		
	FC71	2401-001238	E.CAPACITOR		
	FC72	2401-001238	E.CAPACITOR		
	FC73	2401-001238	E.CAPACITOR		
	FC73L	2203-000783	CHIP CAPACITOR		
	FC73R	2203-000783	CHIP CAPACITOR		
	FC74	2401-001238	E.CAPACITOR		
	FC8	2401-000407	E.CAPACITOR		
	FC9	2401-000407	E.CAPACITOR		
	FC99	2401-000588	E.CAPACITOR		
	FIC1	1203-000276	IC		
	FIC11	1201-000163	IC		
	FIC12	1204-001465	IC		
	FIC2	1201-000163	IC		
	FIC3	1201-000163	IC		
	FIC4	1201-000163	IC		
	FIC5	1201-000163	IC		
	FIC6	1201-000163	IC		
	FR10	2007-000101	CHIP RESISTOR		
	FR11	2007-000075	CHIP RESISTOR		
	FR17L	2007-000082	CHIP RESISTOR		
	FR17R	2007-000082	CHIP RESISTOR		
	FR18L	2007-000082	CHIP RESISTOR		
	FR18R	2007-000082	CHIP RESISTOR		
	FR19L	2007-000082	CHIP RESISTOR		
	FR19R	2007-000082	CHIP RESISTOR		
	FR2	2007-007147	CHIP RESISTOR		
	FR20L	2007-000086	CHIP RESISTOR		
	FR20R	2007-000086	CHIP RESISTOR		
	FR21L	2007-000082	CHIP RESISTOR		
	FR21R	2007-000082	CHIP RESISTOR		
	FR22L	2007-000402	CHIP RESISTOR		
	FR22R	2007-000402	CHIP RESISTOR		
	FR23L	2007-000402	CHIP RESISTOR		
	FR23R	2007-000402	CHIP RESISTOR		
	FR24L	2007-000090	CHIP RESISTOR		
	FR24R	2007-000090	CHIP RESISTOR		
	FR25L	2007-000090	CHIP RESISTOR		
	FR25R	2007-000090	CHIP RESISTOR		
	FR26L	2007-000090	CHIP RESISTOR		
	FR26R	2007-000090	CHIP RESISTOR		
	FR28L	2007-000129	CHIP RESISTOR		
	FR28R	2007-000129	CHIP RESISTOR		
	FR31	2007-000074	CHIP RESISTOR		
	FR32	2007-000074	CHIP RESISTOR		
	FR34L	2007-000102	CHIP RESISTOR		
	FR34R	2007-000102	CHIP RESISTOR		
	FR35L	2007-000078	CHIP RESISTOR		
	FR35R	2007-000078	CHIP RESISTOR		
	FR36L	2007-000070	CHIP RESISTOR		
	FR36R	2007-000070	CHIP RESISTOR		
	FR4	2007-000101	CHIP RESISTOR		
	FR5	2007-000098	CHIP RESISTOR		
	FR51L	2007-000078	CHIP RESISTOR		
	FR51R	2007-000078	CHIP RESISTOR		
	FR52L	2007-000097	CHIP RESISTOR		
	FR52R	2007-000097	CHIP RESISTOR		
	FR53L	2007-000084	CHIP RESISTOR		
	FR53R	2007-000084	CHIP RESISTOR		

■ **Electrical parts list (DSP board))** **Block No. 02**

⚠	Item	Parts number	Parts name	Remarks	Area
	FR54L	2007-000123	CHIP RESISTOR		
	FR54R	2007-000123	CHIP RESISTOR		
	FR6	2007-000098	CHIP RESISTOR		
	FR7	2007-000129	CHIP RESISTOR		
	FZD1	0403-001387	ZENER DIODE		
	HIC11	1201-001285	IC		
	NC11	2401-001502	E.CAPACITOR		
	NW11	3711-000820	CONNECTOR		
	OC11	2203-005005	CHIP CAPACITOR		
	OC12	2203-005005	CHIP CAPACITOR		
	OC13	2203-000257	CHIP CAPACITOR		
	ODR12	2007-000070	CHIP RESISTOR		
	OJACK	0603-001068	JACK OPTICAL		
	RC11	2401-000407	E.CAPACITOR		
	RC12	2401-000407	E.CAPACITOR		
	RC13	2401-000650	E.CAPACITOR		
	RC14	2401-000650	E.CAPACITOR		
	RC15	2401-001238	E.CAPACITOR		
	RC16	2401-001238	E.CAPACITOR		
	RC17	2401-000407	E.CAPACITOR		
	RC18	2401-001502	E.CAPACITOR		
	RC19	2401-001889	E.CAPACITOR		
	RC20	2401-001889	E.CAPACITOR		
	RC31L	2203-001554	CHIP CAPACITOR		
	RC31R	2203-001554	CHIP CAPACITOR		
	RC32L	2203-000440	CHIP CAPACITOR		
	RC32R	2203-000440	CHIP CAPACITOR		
	RC33L	2203-000783	CHIP CAPACITOR		
	RC33R	2203-000783	CHIP CAPACITOR		
	RC34L	2203-000783	CHIP CAPACITOR		
	RC34R	2203-000783	CHIP CAPACITOR		
	RC35L	2203-000783	CHIP CAPACITOR		
	RC35R	2203-000783	CHIP CAPACITOR		
	RC36L	2203-000531	CHIP CAPACITOR		
	RC36R	2203-000531	CHIP CAPACITOR		
	RC39L	2203-000531	CHIP CAPACITOR		
	RC39R	2203-000531	CHIP CAPACITOR		
	RC51L	2203-001554	CHIP CAPACITOR		
	RC51R	2203-001554	CHIP CAPACITOR		
	RIC11	1201-000163	IC		
	RIC12	1204-001465	IC		
	RIC13	1201-000163	IC		
	RR11L	2007-000082	CHIP RESISTOR		
	RR11R	2007-000082	CHIP RESISTOR		
	RR12L	2007-000082	CHIP RESISTOR		
	RR12R	2007-000082	CHIP RESISTOR		
	RR13L	2007-000082	CHIP RESISTOR		
	RR13R	2007-000082	CHIP RESISTOR		
	RR14L	2007-000082	CHIP RESISTOR		
	RR14R	2007-000082	CHIP RESISTOR		
	RR15L	2007-000086	CHIP RESISTOR		
	RR15R	2007-000086	CHIP RESISTOR		
	RR16L	2007-000078	CHIP RESISTOR		
	RR16R	2007-000078	CHIP RESISTOR		
	RR17L	2007-000097	CHIP RESISTOR		
	RR17R	2007-000097	CHIP RESISTOR		
	RR18L	2007-000084	CHIP RESISTOR		
	RR18R	2007-000084	CHIP RESISTOR		
	RR19L	2007-000120	CHIP RESISTOR		
	RR19R	2007-000120	CHIP RESISTOR		
	RR20	2007-000074	CHIP RESISTOR		
	RR21	2007-000074	CHIP RESISTOR		
	RR25L	2007-000078	CHIP RESISTOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	RR25R	2007-000078	CHIP RESISTOR		
	SC11	2401-000407	E.CAPACITOR		
	SC12	2401-001238	E.CAPACITOR		
	SC13	2401-001238	E.CAPACITOR		
	SC14	2401-001238	E.CAPACITOR		
	SC18	2203-005221	CHIP CAPACITOR		
	SC19	2203-001389	CHIP CAPACITOR		
	SC20	2203-001211	CHIP CAPACITOR		
	SC22	2203-000783	CHIP CAPACITOR		
	SC23	2203-000604	CHIP CAPACITOR		
	SR11	2007-000094	CHIP RESISTOR		
	SR12	2007-000094	CHIP RESISTOR		
	SR13	2007-000094	CHIP RESISTOR		
	SR14	2007-000082	CHIP RESISTOR		
	SR15	2007-000086	CHIP RESISTOR		
	SR16	2007-000075	CHIP RESISTOR		
	SR17	2007-000097	CHIP RESISTOR		
	SR18	2007-000084	CHIP RESISTOR		
	SR19	2007-000402	CHIP RESISTOR		
	UC1	2409-000123	C-EDL		
	UC101	2401-000243	E.CAPACITOR		
	UC2	2401-001238	E.CAPACITOR		
	UC3	2401-000752	E.CAPACITOR		
	UC4	2401-000243	E.CAPACITOR		
	UC46	2203-000236	CHIP CAPACITOR		
	UC5	2203-000062	CHIP CAPACITOR		
	UC6	2203-005005	CHIP CAPACITOR		
	UC82	2203-000604	CHIP CAPACITOR		
	UD10	0402-000309	DIODE		
	UD4	0401-001110	DIODE		
	UD5	0401-001110	DIODE		
	UD6	0402-000309	DIODE		
	UD7	0401-001110	DIODE		
	UD8	0401-001110	DIODE		
	UD9	0401-001110	DIODE		
	UIC1	AH11-00049A	IC	LC86P6548	
	UQ3	0501-000398	TRANSISTOR		
	UR1	2007-000074	CHIP RESISTOR		
	UR101	2007-000090	CHIP RESISTOR		
	UR102	2007-000090	CHIP RESISTOR		
	UR11	2007-000074	CHIP RESISTOR		
	UR13	2007-000074	CHIP RESISTOR		
	UR14	2007-000074	CHIP RESISTOR		
	UR15	2007-000074	CHIP RESISTOR		
	UR16	2007-000082	CHIP RESISTOR		
	UR17	2007-000082	CHIP RESISTOR		
	UR18	2007-000074	CHIP RESISTOR		
	UR19	2007-000074	CHIP RESISTOR		
	UR2	2007-000074	CHIP RESISTOR		
	UR21	2007-000090	CHIP RESISTOR		
	UR22	2007-000090	CHIP RESISTOR		
	UR23	2007-000090	CHIP RESISTOR		
	UR24	2007-000090	CHIP RESISTOR		
	UR28	2007-000074	CHIP RESISTOR		
	UR29	2007-000090	CHIP RESISTOR		
	UR3	2007-000074	CHIP RESISTOR		
	UR30	2007-000090	CHIP RESISTOR		
	UR31	2007-000090	CHIP RESISTOR		
	UR32	2007-000074	CHIP RESISTOR		
	UR33	2007-000090	CHIP RESISTOR		
	UR34	2007-000074	CHIP RESISTOR		
	UR35	2007-000074	CHIP RESISTOR		
	UR36	2007-000074	CHIP RESISTOR		

■ **Electrical parts list (DSP board)** **Block No. 02**

⚠	Item	Parts number	Parts name	Remarks	Area
	UR37	2007-000074	CHIP RESISTOR		
	UR38	2007-000098	CHIP RESISTOR		
	UR39	2007-000074	CHIP RESISTOR		
	UR4	2007-000078	CHIP RESISTOR		
	UR40	2007-000074	CHIP RESISTOR		
	UR41	2007-000074	CHIP RESISTOR		
	UR42	2007-000074	CHIP RESISTOR		
	UR43	2007-000074	CHIP RESISTOR		
	UR44	2007-000090	CHIP RESISTOR		
	UR45	2007-000074	CHIP RESISTOR		
	UR46	2007-000074	CHIP RESISTOR		
	UR47	2007-000090	CHIP RESISTOR		
	UR48	2007-000074	CHIP RESISTOR		
	UR49	2007-000090	CHIP RESISTOR		
	UR5	2007-000078	CHIP RESISTOR		
	UR50	2007-000090	CHIP RESISTOR		
	UR51	2007-000090	CHIP RESISTOR		
	UR52	2007-000090	CHIP RESISTOR		
	UR53	2007-000074	CHIP RESISTOR		
	UR54	2007-000074	CHIP RESISTOR		
	UR55	2007-000074	CHIP RESISTOR		
	UR56	2007-000074	CHIP RESISTOR		
	UR57	2007-000074	CHIP RESISTOR		
	UR58	2007-000074	CHIP RESISTOR		
	UR59	2007-000074	CHIP RESISTOR		
	UR6	2007-000074	CHIP RESISTOR		
	UR60	2007-000090	CHIP RESISTOR		
	UR61	2007-000090	CHIP RESISTOR		
	UR62	2007-000074	CHIP RESISTOR		
	UR63	2007-000074	CHIP RESISTOR		
	UR64	2007-000074	CHIP RESISTOR		
	UR65	2007-000074	CHIP RESISTOR		
	UR66	2007-000074	CHIP RESISTOR		
	UR67	2007-000074	CHIP RESISTOR		
	UR68	2007-000074	CHIP RESISTOR		
	UR69	2007-000074	CHIP RESISTOR		
	UR7	2007-000074	CHIP RESISTOR		
	UR70	2007-000074	CHIP RESISTOR		
	UR72	2007-000106	CHIP RESISTOR		
	UR73	2007-000084	CHIP RESISTOR		
	UR74	2007-000124	CHIP RESISTOR		
	UR75	2007-000072	CHIP RESISTOR		
	UR76	2007-000070	CHIP RESISTOR		
	UR77	2007-000090	CHIP RESISTOR		
	UR78	2007-000090	CHIP RESISTOR		
	UR79	2007-000090	CHIP RESISTOR		
	UR8	2007-000078	CHIP RESISTOR		
	UR80	2007-000070	CHIP RESISTOR		
	UR81	2007-000090	CHIP RESISTOR		
	UR83	2007-000090	CHIP RESISTOR		
	UR84	2007-000130	CHIP RESISTOR		
	UR85	2007-000090	CHIP RESISTOR		
	UR86	2007-000074	CHIP RESISTOR		
	UR89	2007-000070	CHIP RESISTOR		
	UR9	2007-000078	CHIP RESISTOR		
	UR90	2007-000082	CHIP RESISTOR		
	UR91	2007-000082	CHIP RESISTOR		
	UR95	2007-000074	CHIP RESISTOR		
	UR96	2007-000074	CHIP RESISTOR		
	UR97	2007-000074	CHIP RESISTOR		
	UX2	2802-001157	RESONATOR	6MHZ	
	VW11	3708-001464	CONNECTOR		

■ **Electrical parts list (FRont board)** **Block No. 03**

⚠	Item	Parts number	Parts name	Remarks	Area
	FW1	3708-000451	CONNECTOR		
	FW2	3711-000906	CONNECTOR		
	FW3	AH39-00176A	LEAD CONNECTOR	1061#26	
	SW1	3404-001182	TACT SWITCH		
	SW10	3404-001182	TACT SWITCH		
	SW11	3404-001182	TACT SWITCH		
	SW2	3404-001182	TACT SWITCH		
	SW3	3404-001182	TACT SWITCH		
	SW4	3404-001182	TACT SWITCH		
	SW5	3404-001182	TACT SWITCH		
	SW6	3404-001182	TACT SWITCH		
	SW7	3404-001182	TACT SWITCH		
	SW8	3404-001182	TACT SWITCH		
	SW9	3404-001182	TACT SWITCH		
	UC1	2201-000783	C.CAPASITOR		
	UC2	2201-000783	C.CAPASITOR		
	UC3	2401-000475	E.CAPACITOR		
	UC4	2201-000565	C.CAPACITOR		
	UC5	2201-000565	C.CAPACITOR		
	UC6	2401-001912	E.CAPACITOR		
	UC7	2202-000780	C.CAPACITOR		
	UC80	2202-000797	C.CAPACITOR		
	UC9	2201-000389	C.CAPACITOR		
	UD1	0402-000127	DIODE		
	UD10	0402-000127	DIODE		
	UD2	0402-000127	DIODE		
	UD3	0401-000101	DIODE		
	UD4	0401-000101	DIODE		
	UEYE	AC59-60060A	REMOCON EYE		
	UIC10	1003-001403	IC		
	ULD3	0601-001238	LED		
	ULD4	0601-001432	LED		
	UQ1	0504-001003	DEGI TRANSISTOR		
	UQ2	0504-001003	DEGI TRANSISTOR		
	UQ3	0504-000118	DEGI TRANSISTOR		
	UR31	2001-000023	CARBON RESISTOR		
	UR32	2001-000023	CARBON RESISTOR		
	UR35	2001-000281	CARBON RESISTOR		
	UR36	2001-000281	CARBON RESISTOR		
	UR37	2001-000281	CARBON RESISTOR		
	UR38	2001-000281	CARBON RESISTOR		
	UR39	2001-000290	CARBON RESISTOR		
	UR40	2001-000290	CARBON RESISTOR		
	UR41	2001-000802	CARBON RESISTOR		
	UR42	2001-000062	CARBON RESISTOR		
	UR43	2001-000554	CARBON RESISTOR		
	UR69	2001-000429	CARBON RESISTOR		
	UR70	2001-000221	CARBON RESISTOR		
	UR71	2001-000241	CARBON RESISTOR		
	UR72	2001-000258	CARBON RESISTOR		
	UR73	2001-000472	CARBON RESISTOR		
	UR74	2001-000613	CARBON RESISTOR		
	UR75	2001-000802	CARBON RESISTOR		
	UR76	2001-000290	CARBON RESISTOR		
	UR77	2001-000411	CARBON RESISTOR		
	UR78	2001-000864	CARBON RESISTOR		
	UR80	2001-000290	CARBON RESISTOR		
	UWIRE	AH39-50001L	LEAD FASTEN		
	UZD1	0403-000367	ZENER DIODE		
	VFD	AH07-00056A	VFD	HNV-11SS34T	

■ **Electrical parts list (Jack board)** **Block No. 04**

⚠	Item	Parts number	Parts name	Remarks	Area
	OC1	2201-000783	C.CAPASITOR		
	OJ1	0603-001069	OPTICAL JACK		
	VC1	2201-000783	C.CAPASITOR		
	VC10	2201-000783	C.CAPASITOR		
	VC14	2001-000273	CABON RESISTOR		
	VC17	2401-001954	E.CAPASITOR		
	VC18	2401-001102	E.CAPASITOR		
	VC19	2401-001102	E.CAPASITOR		
	VC2	2401-001102	E.CAPASITOR		
	VC20	2401-001102	E.CAPASITOR		
	VC21	2401-001102	E.CAPASITOR		
	VC9	2401-001954	E.CAPASITOR		
	VIC4	1001-001173	IC	BA7612AF	
	VJ2	3722-001693	PIN JACK		
	VJ4	AH37-00005A	RCA JACK		
	VJ5	3722-001502	DIN JACK		
	VL1	3301-000297	BEAD		
	VR10	2001-000969	CABON RESISTOR		
	VR14	2001-000969	CABON RESISTOR		
	VR25	2001-000969	CABON RESISTOR		
	VR26	2001-000969	CABON RESISTOR		
	VR3	2001-000969	CABON RESISTOR		
	VR6	2001-000786	CABON RESISTOR		
	VW1	3711-004110	CONNECTOR		
	VW2	3708-000347	CONNECTOR		

■ **Electrical parts list (DVD loarder board)** **Block No. 05**

⚠	Item	Parts number	Parts name	Remarks	Area
	CE1	2401-001975	E.CAPACITOR		
	CE10	2401-001975	E.CAPACITOR		
	CE11	2401-001975	E.CAPACITOR		
	CE12	2401-001895	E.CAPACITOR		
	CE14	2401-001975	E.CAPACITOR		
	CE15	2401-001975	E.CAPACITOR		
	CE19	2401-001895	E.CAPACITOR		
	CE2	2401-001975	E.CAPACITOR		
	CE3	2401-001975	E.CAPACITOR		
	CE4	2401-001502	E.CAPACITOR		
	CE5	2401-001975	E.CAPACITOR		
	CE6	2401-000778	E.CAPACITOR		
	CE7	2401-001895	E.CAPACITOR		
	CE8	2401-001895	E.CAPACITOR		
	CE9	2401-001975	E.CAPACITOR		
	C1	2203-005005	CHIP CAPACITOR		
	C10	2203-005005	CHIP CAPACITOR		
	C11	2203-005005	CHIP CAPACITOR		
	C12	2203-000998	CHIP CAPACITOR		
	C13	2203-000998	CHIP CAPACITOR		
	C14	2203-005005	CHIP CAPACITOR		
	C15	2203-005005	CHIP CAPACITOR		
	C16	2203-005005	CHIP CAPACITOR		
	C17	2203-002494	CHIP CAPACITOR		
	C18	2203-000972	CHIP CAPACITOR		
	C19	2203-001656	CHIP CAPACITOR		
	C2	2203-005005	CHIP CAPACITOR		
	C20	2203-001656	CHIP CAPACITOR		
	C21	2203-001103	CHIP CAPACITOR		
	C23	2203-000440	CHIP CAPACITOR		
	C24	2203-000440	CHIP CAPACITOR		
	C25	2203-000440	CHIP CAPACITOR		
	C26	2203-001573	CHIP CAPACITOR		
	C27	2203-001573	CHIP CAPACITOR		
	C28	2203-001573	CHIP CAPACITOR		
	C29	2203-001573	CHIP CAPACITOR		
	C3	2203-005005	CHIP CAPACITOR		
	C30	2203-001573	CHIP CAPACITOR		
	C31	2203-001573	CHIP CAPACITOR		
	C32	2203-000998	CHIP CAPACITOR		
	C34	2203-001573	CHIP CAPACITOR		
	C35	2203-001573	CHIP CAPACITOR		
	C36	2203-005005	CHIP CAPACITOR		
	C38	2203-000257	CHIP CAPACITOR		
	C39	2203-005005	CHIP CAPACITOR		
	C4	2203-000604	CHIP CAPACITOR		
	C40	2203-005261	CHIP CAPACITOR		
	C44	2203-005005	CHIP CAPACITOR		
	C45	2203-005005	CHIP CAPACITOR		
	C46	2203-005005	CHIP CAPACITOR		
	C47	2203-005005	CHIP CAPACITOR		
	C48	2203-005005	CHIP CAPACITOR		
	C49	2203-005005	CHIP CAPACITOR		
	C5	2203-005005	CHIP CAPACITOR		
	C50	2203-005005	CHIP CAPACITOR		
	C51	2203-005005	CHIP CAPACITOR		
	C52	2203-005005	CHIP CAPACITOR		
	C53	2203-005005	CHIP CAPACITOR		
	C54	2203-001126	CHIP CAPACITOR		
	C55	2203-005005	CHIP CAPACITOR		
	C56	2203-001628	CHIP CAPACITOR		
	C57	2203-001628	CHIP CAPACITOR		
	C58	2203-001628	CHIP CAPACITOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	C59	2203-000972	CHIP CAPACITOR		
	C6	2203-005005	CHIP CAPACITOR		
	C60	2203-001126	CHIP CAPACITOR		
	C61	2203-001126	CHIP CAPACITOR		
	C62	2203-001126	CHIP CAPACITOR		
	C63	2203-001126	CHIP CAPACITOR		
	C64	2203-005005	CHIP CAPACITOR		
	C65	2203-000236	CHIP CAPACITOR		
	C66	2203-000440	CHIP CAPACITOR		
	C67	2203-002494	CHIP CAPACITOR		
	C68	2203-000236	CHIP CAPACITOR		
	C69	2203-002494	CHIP CAPACITOR		
	C7	2203-005005	CHIP CAPACITOR		
	C70	2203-005005	CHIP CAPACITOR		
	C71	2203-001103	CHIP CAPACITOR		
	C72	2203-000440	CHIP CAPACITOR		
	C73	2203-005005	CHIP CAPACITOR		
	C74	2203-005005	CHIP CAPACITOR		
	C75	2203-005005	CHIP CAPACITOR		
	C76	2203-005005	CHIP CAPACITOR		
	C77	2203-005005	CHIP CAPACITOR		
	C78	2203-005005	CHIP CAPACITOR		
	C79	2203-005005	CHIP CAPACITOR		
	C8	2203-005005	CHIP CAPACITOR		
	C80	2203-005005	CHIP CAPACITOR		
	C81	2203-005005	CHIP CAPACITOR		
	C82	2203-005005	CHIP CAPACITOR		
	C83	2203-005005	CHIP CAPACITOR		
	C84	2402-000176	E.CAPACITOR		
	C85	2203-005005	CHIP CAPACITOR		
	C86	2203-005005	CHIP CAPACITOR		
	C87	2203-005005	CHIP CAPACITOR		
	C88	2203-005005	CHIP CAPACITOR		
	C9	2203-001573	CHIP CAPACITOR		
	D1	0407-000114	DIODE-ARRAY		
	D3	0407-000116	DIODE-ARRAY		
	J2	3711-003111	CONNECTOR		
	J3	3708-001645	CONNECTOR		
	J4	AH39-00368A	CONNECTOR		
	J5	3711-001018	CONNECTOR		
	L2	3301-001495	BEAD		
	L3	3301-001495	BEAD		
	L4	2703-000001	INDUCTOR		
	L7	2703-000001	INDUCTOR		
	Q2	0504-000128	DEGI TRANSISTOR		
	Q3	0501-000632	TRANSISTOR		
	Q4	0501-000632	TRANSISTOR		
	R100	2007-000113	CHIP RESISTOR		
	R101	2007-000113	CHIP RESISTOR		
	R102	2007-000113	CHIP RESISTOR		
	R103	2007-000072	CHIP RESISTOR		
	R104	2007-000113	CHIP RESISTOR		
	R105	2007-000072	CHIP RESISTOR		
	R106	2007-000113	CHIP RESISTOR		
	R107	2007-000072	CHIP RESISTOR		
	R108	2007-000113	CHIP RESISTOR		
	R109	2007-000113	CHIP RESISTOR		
	R11	2007-000124	CHIP RESISTOR		
	R110	2007-000113	CHIP RESISTOR		
	R111	2007-000072	CHIP RESISTOR		
	R115	2007-000070	CHIP RESISTOR		
	R116	2007-000094	CHIP RESISTOR		
	R117	2007-000075	CHIP RESISTOR		

■ **Electrical parts list (DVD loarder board)** **Block No. 05**

⚠	Item	Parts number	Parts name	Remarks	Area
	R118	2007-000084	CHIP RESISTOR		
	R119	2007-000084	CHIP RESISTOR		
	R12	2007-000113	CHIP RESISTOR		
	R120	2007-000082	CHIP RESISTOR		
	R121	2007-000094	CHIP RESISTOR		
	R122	2007-000090	CHIP RESISTOR		
	R123	2007-000094	CHIP RESISTOR		
	R124	2007-000070	CHIP RESISTOR		
	R125	2007-000090	CHIP RESISTOR		
	R126	2007-000094	CHIP RESISTOR		
	R127	2007-000090	CHIP RESISTOR		
	R128	2007-000094	CHIP RESISTOR		
	R129	2007-000090	CHIP RESISTOR		
	R13	2007-000113	CHIP RESISTOR		
	R131	2007-000070	CHIP RESISTOR		
	R132	2007-001179	CHIP RESISTOR		
	R135	2007-000084	CHIP RESISTOR		
	R137	2007-000084	CHIP RESISTOR		
	R14	2007-000113	CHIP RESISTOR		
	R142	2007-000070	CHIP RESISTOR		
	R143	2007-000090	CHIP RESISTOR		
	R145	2007-000082	CHIP RESISTOR		
	R147	2007-000082	CHIP RESISTOR		
	R148	2007-000070	CHIP RESISTOR		
	R149	2007-000109	CHIP RESISTOR		
	R15	2007-000113	CHIP RESISTOR		
	R150	2007-000309	CHIP RESISTOR		
	R151	2007-000090	CHIP RESISTOR		
	R152	2007-000090	CHIP RESISTOR		
	R153	2007-000078	CHIP RESISTOR		
	R155	2007-002425	CHIP RESISTOR		
	R156	2007-002425	CHIP RESISTOR		
	R157	2007-002425	CHIP RESISTOR		
	R158	2007-002425	CHIP RESISTOR		
	R159	2007-000102	CHIP RESISTOR		
	R16	2007-000113	CHIP RESISTOR		
	R160	2007-000102	CHIP RESISTOR		
	R161	2007-000102	CHIP RESISTOR		
	R162	2007-000077	CHIP RESISTOR		
	R166	2007-000075	CHIP RESISTOR		
	R167	2007-000309	CHIP RESISTOR		
	R168	2007-000078	CHIP RESISTOR		
	R17	2007-000102	CHIP RESISTOR		
	R170	2007-000078	CHIP RESISTOR		
	R171	2007-000078	CHIP RESISTOR		
	R173	2007-000070	CHIP RESISTOR		
	R18	2007-000102	CHIP RESISTOR		
	R19	2007-000084	CHIP RESISTOR		
	R20	2007-000097	CHIP RESISTOR		
	R22	2007-000094	CHIP RESISTOR		
	R23	2007-000113	CHIP RESISTOR		
	R24	2007-000074	CHIP RESISTOR		
	R25	2007-000090	CHIP RESISTOR		
	R26	2007-000082	CHIP RESISTOR		
	R27	2007-000082	CHIP RESISTOR		
	R28	2007-000090	CHIP RESISTOR		
	R29	2007-000113	CHIP RESISTOR		
	R3	2007-000124	CHIP RESISTOR		
	R30	2007-000097	CHIP RESISTOR		
	R31	2007-000070	CHIP RESISTOR		
	R32	2007-000082	CHIP RESISTOR		
	R33	2007-000084	CHIP RESISTOR		
	R34	2007-000113	CHIP RESISTOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	R35	2007-000113	CHIP RESISTOR		
	R36	2007-000113	CHIP RESISTOR		
	R38	2007-000113	CHIP RESISTOR		
	R39	2007-000113	CHIP RESISTOR		
	R4	2007-000084	CHIP RESISTOR		
	R45	2007-000078	CHIP RESISTOR		
	R46	2007-000074	CHIP RESISTOR		
	R47	2007-000078	CHIP RESISTOR		
	R48	2007-000090	CHIP RESISTOR		
	R49	2007-000094	CHIP RESISTOR		
	R5	2007-000090	CHIP RESISTOR		
	R50	2007-000084	CHIP RESISTOR		
	R52	2007-000109	CHIP RESISTOR		
	R53	2007-000070	CHIP RESISTOR		
	R54	2007-000070	CHIP RESISTOR		
	R56	2007-000090	CHIP RESISTOR		
	R57	2007-000090	CHIP RESISTOR		
	R58	2007-000090	CHIP RESISTOR		
	R59	2007-000090	CHIP RESISTOR		
	R6	2007-000124	CHIP RESISTOR		
	R60	2007-000090	CHIP RESISTOR		
	R61	2007-000090	CHIP RESISTOR		
	R62	2007-000090	CHIP RESISTOR		
	R63	2007-000090	CHIP RESISTOR		
	R64	2007-000090	CHIP RESISTOR		
	R65	2007-000090	CHIP RESISTOR		
	R66	2007-000090	CHIP RESISTOR		
	R67	2007-000090	CHIP RESISTOR		
	R68	2007-000090	CHIP RESISTOR		
	R69	2007-000090	CHIP RESISTOR		
	R7	2007-000078	CHIP RESISTOR		
	R70	2007-000090	CHIP RESISTOR		
	R71	2007-000090	CHIP RESISTOR		
	R72	2007-000090	CHIP RESISTOR		
	R73	2007-000090	CHIP RESISTOR		
	R74	2007-000090	CHIP RESISTOR		
	R75	2007-000090	CHIP RESISTOR		
	R76	2007-000090	CHIP RESISTOR		
	R77	2007-000090	CHIP RESISTOR		
	R78	2007-000090	CHIP RESISTOR		
	R79	2007-000090	CHIP RESISTOR		
	R80	2007-000090	CHIP RESISTOR		
	R82	2007-000074	CHIP RESISTOR		
	R83	2007-000074	CHIP RESISTOR		
	R84	2007-000074	CHIP RESISTOR		
	R85	2007-000074	CHIP RESISTOR		
	R86	2007-000074	CHIP RESISTOR		
	R87	2007-000074	CHIP RESISTOR		
	R88	2007-000074	CHIP RESISTOR		
	R89	2007-000074	CHIP RESISTOR		
	R90	2007-000074	CHIP RESISTOR		
	R91	2007-000074	CHIP RESISTOR		
	R92	2007-000074	CHIP RESISTOR		
	R93	2007-000074	CHIP RESISTOR		
	R94	2007-000074	CHIP RESISTOR		
	R95	2007-000074	CHIP RESISTOR		
	R96	2007-000074	CHIP RESISTOR		
	R97	2007-000074	CHIP RESISTOR		
	R98	2007-000113	CHIP RESISTOR		
	R99	2007-000113	CHIP RESISTOR		
	U1	1105-001372	IC		
	U10	1003-001418	IC		
	U2	1204-001871	IC		

■ **Electrical parts list (DVD loarder board)** **Block No. 05**

⚠	Item	Parts number	Parts name	Remarks	Area
	U3	0903-001246	IC		
	U4	1203-001369	IC		
	U5	1203-001293	IC		
	U6	1003-001305	IC		
	U7	1201-001790	IC		
	U9	3708-001574	CONNECTOR		
	X1	2801-000261	CRYSTAL		
	ZD1	0403-000357	DIODE		

■ **Electrical parts list (MPEG board)** **Block No. 06**

⚠	Item	Parts number	Parts name	Remarks	Area
	C101	2203-005005	CHIP CAPACITOR		
	C102	2203-000257	CHIP CAPACITOR		
	C103	2203-005005	CHIP CAPACITOR		
	C104	2203-005005	CHIP CAPACITOR		
	C105	2203-005005	CHIP CAPACITOR		
	C106	2203-005005	CHIP CAPACITOR		
	C107	2203-005005	CHIP CAPACITOR		
	C28	2402-001059	E CAPACITOR		
	C29	2203-005005	CHIP CAPACITOR		
	C30	2402-001059	E CAPACITOR		
	C31	2203-005005	CHIP CAPACITOR		
	C32	2203-005005	CHIP CAPACITOR		
	C33	2402-000179	E CAPACITOR		
	C36	2203-005005	CHIP CAPACITOR		
	C37	2203-005005	CHIP CAPACITOR		
	C38	2402-000179	E CAPACITOR		
	C46	2203-005005	CHIP CAPACITOR		
	C48	2402-000179	E CAPACITOR		
	C50	2203-005005	CHIP CAPACITOR		
	C51	2203-005005	CHIP CAPACITOR		
	C54	2203-005005	CHIP CAPACITOR		
	C55	2203-005005	CHIP CAPACITOR		
	C59	2203-005005	CHIP CAPACITOR		
	C61	2203-005005	CHIP CAPACITOR		
	C62	2203-005005	CHIP CAPACITOR		
	C64	2203-005005	CHIP CAPACITOR		
	C66	2203-005005	CHIP CAPACITOR		
	C67	2203-005005	CHIP CAPACITOR		
	C68	2402-000179	E CAPACITOR		
	C69	2402-001059	E CAPACITOR		
	C70	2203-005005	CHIP CAPACITOR		
	C71	2203-005005	CHIP CAPACITOR		
	C73	2402-001059	E CAPACITOR		
	C75	2203-005005	CHIP CAPACITOR		
	C76	2203-005005	CHIP CAPACITOR		
	C77	2203-005005	CHIP CAPACITOR		
	C79	2203-005005	CHIP CAPACITOR		
	C80	2203-005005	CHIP CAPACITOR		
	C82	2402-000179	E CAPACITOR		
	C84	2402-000176	E CAPACITOR		
	C85	2402-001059	E CAPACITOR		
	C86	2203-005005	CHIP CAPACITOR		
	C87	2203-005005	CHIP CAPACITOR		
	C88	2203-005005	CHIP CAPACITOR		
	C89	2203-005005	CHIP CAPACITOR		
	C90	2203-005005	CHIP CAPACITOR		
	C96	2203-000384	CHIP CAPACITOR		
	C97	2203-000552	CHIP CAPACITOR		
	C98	2203-005005	CHIP CAPACITOR		
	C99	2203-005005	CHIP CAPACITOR		
	DC1	2203-005005	CHIP CAPACITOR		
	DR1	2007-000074	CHIP RESISTOR		
	DR2	2007-000074	CHIP RESISTOR		
	DR3	2007-000074	CHIP RESISTOR		
	DR4	2007-000074	CHIP RESISTOR		
	DR5	2007-000074	CHIP RESISTOR		
	DR6	2007-000074	CHIP RESISTOR		
	DR7	2007-000074	CHIP RESISTOR		
	DR8	2007-000074	CHIP RESISTOR		
	DR9	2007-000074	CHIP RESISTOR		
	J14	3708-001615	CONNECTOR		
	J21	3708-001646	CONNECTOR		
	J6	3708-001645	CONNECTOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	L1	3301-001495	BEAD		
	L30	3301-000353	BEAD		
	L32	3301-000353	BEAD		
	L38	3301-001495	BEAD		
	L39	3301-001495	BEAD		
	L40	3301-000353	BEAD		
	L41	3301-000353	BEAD		
	L42	3301-000353	BEAD		
	L43	3301-000353	BEAD		
	L44	3301-000353	BEAD		
	L47	3301-000353	BEAD		
	L48	3301-000353	BEAD		
	L49	3301-000353	BEAD		
	L50	3301-001495	BEAD		
	L52	3301-000353	BEAD		
	L53	3301-000353	BEAD		
	L54	3301-000353	BEAD		
	L55	3301-001495	BEAD		
	L56	3301-001495	BEAD		
	OL1	3301-000353	BEAD		
	OL2	3301-000353	BEAD		
	PL1	3301-000353	BEAD		
	PL3	3301-000325	BEAD		
	Q3	0501-000314	TRANSISTOR		
	Q4	0501-000314	TRANSISTOR		
	Q5	0501-000314	TRANSISTOR		
	Q6	0501-000314	TRANSISTOR		
	Q7	0501-000314	TRANSISTOR		
	Q8	0501-000314	TRANSISTOR		
	R10	2007-000070	CHIP RESISTOR		
	R107	2007-000086	CHIP RESISTOR		
	R108	2007-000084	CHIP RESISTOR		
	R109	2007-000084	CHIP RESISTOR		
	R110	2007-000084	CHIP RESISTOR		
	R111	2007-000084	CHIP RESISTOR		
	R112	2007-000084	CHIP RESISTOR		
	R114	2007-000070	CHIP RESISTOR		
	R31	2007-000084	CHIP RESISTOR		
	R32	2007-000084	CHIP RESISTOR		
	R34	2007-000070	CHIP RESISTOR		
	R5V	2007-000070	CHIP RESISTOR		
	R53	2007-000084	CHIP RESISTOR		
	R55	2007-000122	CHIP RESISTOR		
	R56	2007-000084	CHIP RESISTOR		
	R57	2007-000113	CHIP RESISTOR		
	R58	2007-000113	CHIP RESISTOR		
	R59	2007-000113	CHIP RESISTOR		
	R6	2007-000113	CHIP RESISTOR		
	R60	2007-000116	CHIP RESISTOR		
	R61	2007-000075	CHIP RESISTOR		
	R63	2007-000113	CHIP RESISTOR		
	R64	2007-000113	CHIP RESISTOR		
	R66	2007-000113	CHIP RESISTOR		
	R68	2007-000113	CHIP RESISTOR		
	R71	2007-000113	CHIP RESISTOR		
	R73	2007-000113	CHIP RESISTOR		
	R75	2007-000113	CHIP RESISTOR		
	R78	2007-000113	CHIP RESISTOR		
	R79	2007-000113	CHIP RESISTOR		
	R8	2007-000113	CHIP RESISTOR		
	R80	2007-000113	CHIP RESISTOR		
	R81	2007-000113	CHIP RESISTOR		
	R82	2007-000113	CHIP RESISTOR		

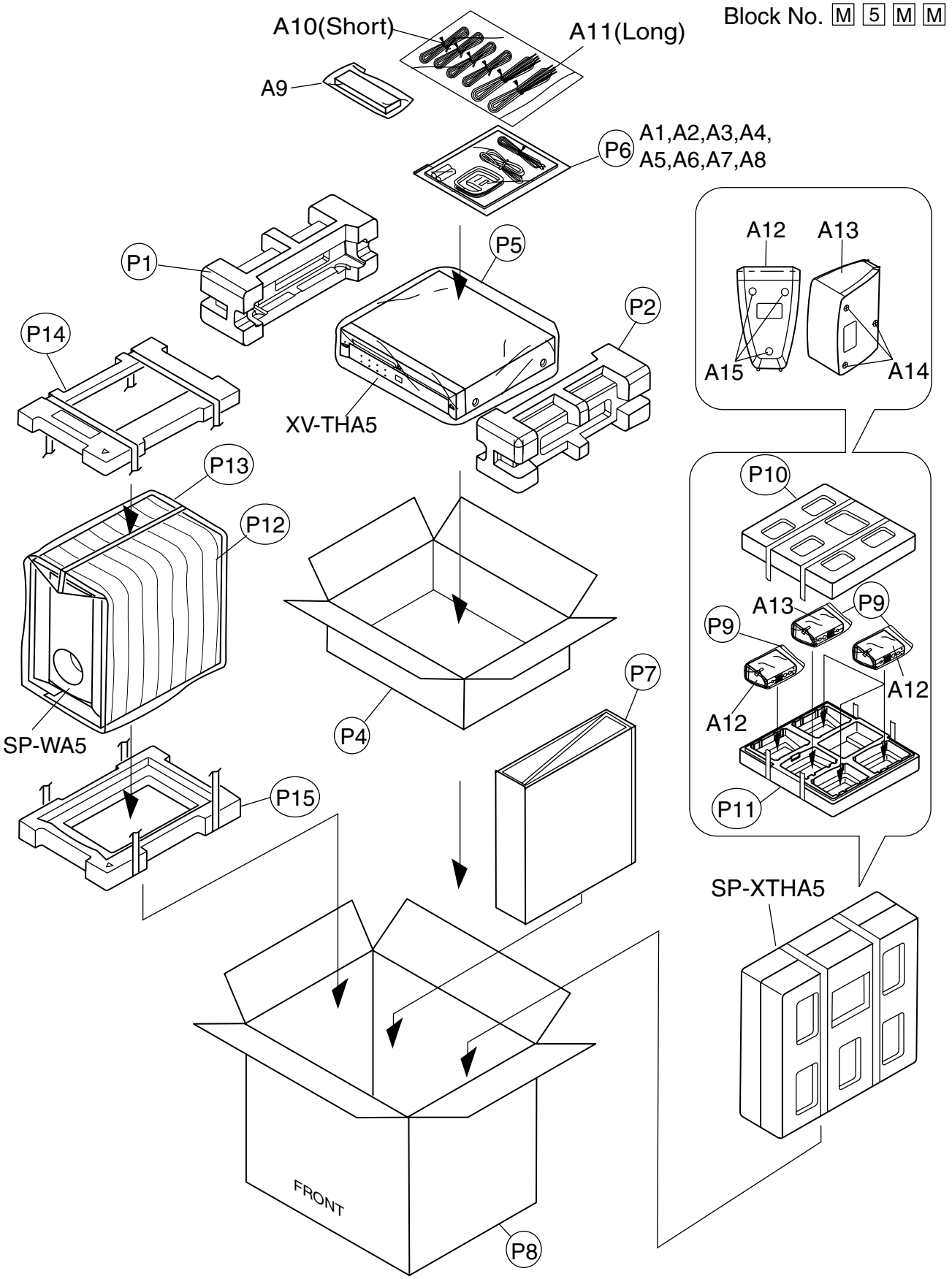
■ **Electrical parts list (MPEG board)** **Block No. 06**

⚠	Item	Parts number	Parts name	Remarks	Area
	R83	2007-000113	CHIP RESISTOR		
	R84	2007-000113	CHIP RESISTOR		
	R85	2007-000113	CHIP RESISTOR		
	R86	2007-000113	CHIP RESISTOR		
	R88	2007-000113	CHIP RESISTOR		
	R9	2007-000070	CHIP RESISTOR		
	R90	2007-000113	CHIP RESISTOR		
	R98	2007-000084	CHIP RESISTOR		
	R99	2007-000078	CHIP RESISTOR		
	U10	0802-001109	IC		
	U11	0802-001109	IC		
	U12	0802-001109	IC		
	U15	0801-002683	IC		
	U5	1105-001376	IC		
	U6	1107-001318	IC		
	U8	1204-001863	IC		
	U9	1203-002369	IC		
	VC10	2203-005005	CHIP CAPACITOR		
	VJL1	2007-000029	CHIP RESISTOR		
	VL1	3301-000353	BEAD		
	VR1	2007-000402	CHIP RESISTOR		
	VR10	2007-000402	CHIP RESISTOR		
	VR11	2007-000070	CHIP RESISTOR		
	VR12	2007-000115	CHIP RESISTOR		
	VR13	2007-000402	CHIP RESISTOR		
	VR14	2007-000070	CHIP RESISTOR		
	VR15	2007-001042	CHIP RESISTOR		
	VR16	2007-000402	CHIP RESISTOR		
	VR17	2007-000070	CHIP RESISTOR		
	VR2	2007-000115	CHIP RESISTOR		
	VR3	2007-000070	CHIP RESISTOR		
	VR4	2007-000115	CHIP RESISTOR		
	VR5	2007-000402	CHIP RESISTOR		
	VR6	2007-000070	CHIP RESISTOR		
	VR7	2007-000402	CHIP RESISTOR		
	VR8	2007-000070	CHIP RESISTOR		
	VR9	2007-000115	CHIP RESISTOR		
	X1	2801-004132	CRYSTAL		

< MEMO >

Packing materials and accessories parts list

Block No. M 3 M M
Block No. M 5 M M



■ Parts list (Packing)

Block No. M3MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	P 1	AH69-00532A	CUSHION-SIDE,L	1	SET	
	P 2	AH69-00533A	CUSHION-SIDE,R	1	SET	
	P 4	AH69-00552A	PACKING-CASE	1	SET	
	P 5	AH69-10081H	POLY BAG	1	SET	
	P 6	AH69-00525B	POLY BAG	1	INST BOOK	
	P 7	AH69-00665A	PAD-ROLL	1		
	P 8	AH69-00664B	MASTER CARTON	1		
	P 9	85-000-327-71	POLY BAG	5	SP-XSA5K,XCA5K	
	P 10	80-000-474-01	TOP CUSHION	1	SP-XSA5K,XCA5K	
	P 11	80-000-474-11	BOTTOM CUSHION	1	SP-XSA5K,XCA5K	
	P 12	85-000-353-51	MIRROR MAT	1	SP-WA5	
	P 13	85-000-434-01	POLY BAG	1	SP-WA5	
	P 14	80-000-475-01	TOP CUSHION	1	SP-WA5	
	P 15	80-000-475-11	BOTTOM CUSHION	1	SP-WA5	

■ Parts list (Accessories)

Block No. M5MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	A 1	AH68-01011C	INST BOOK	1	ENG,FRE	C
		AH68-01011A	INST BOOK	1	ENG	J
	A 2	AH68-00415A	WARRANTY CARD	1		C
	A 3	AH68-00415J	IMPORTANT CARD	1		J
		AH68-00416B	IMPORTANT CARD	1		C
	A 4	AH68-00416A	SAFETY CARD	1		J
	A 5	AH38-10001A	FM-ANT	1		
	A 6	AH42-20001P	AM-ANT	1		
	A 7	----------	BATTERY	1		
	A 8	AH39-40001V	RCA-CABLE	1		
	A 9	AH59-00129A	REMOCON-ASSY	1		
	A 10	AH39-00375A	SPEAKER CORD	4	SHORT	
	A 11	AH39-00376A	SPEAKER CORD	2	LONG	
	A 12	SP-XSA5K	SPK.BOX	4		
	A 13	SP-XCA5K	SPK.BOX	1		
	A 14	90-000-053-01	FOOT	3	SP-XCA5K	
	A 15	90-000-053-11	FOOT	12	SP-XSA5K	